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Carlsbad Energy Center Project (07-AFC-06C)

California Energy Commission Monthly Compliance Report COM-6

November 2018

Submitted by: Carlsbad Energy Center LLC
Date Submitted: 12-14-2018

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List of Attachments

I. Summary

a. Pre-Construction Status

The Carlsbad Energy Center LLC (Project Owner) received a letter from the California Energy Commission compliance project manager (CPM) authorizing site mobilization and the start of demolition for above grade fuel oil tanks 5, 6, and 7 on December 8, 2014. The Project Owner received a letter from the CPM authorizing demolition of above grade fuel oil tanks 1, 2, and 4, and soil remediation on August 31, 2015. The Project Owner received a letter from the CPM authorizing below grade demolition and berm removal on January 15, 2016. The below-grade demolition and berm removal contractor mobilized the week of February 1, 2016 and began below-grade demolition work on February 5, 2016. Below-grade demolition work was completed in May 2016, and the contractor demobilized on May 12, 2016.

b. Construction Status

Phase I activities began December 19, 2014, and were completed in May 2016. The Project Owner completed all compliance activities and condition of certification submittals necessary to enable the Phase II start of construction in May 2016. The California Energy Commission approved the start of construction on June 6, 2016. Phase II of the Amended CECP began in February 2017.

Construction activities conducted in November included: finish grade backfill, miscellaneous site concrete work, and coordination of final site paving.

Commissioning activities included: restoration activities on Units 8 and 10; continuation of gas turbine I/O checkout; and continuation of tuning the fuel gas compressors.

c. Revised/Updated Schedule

Per Condition of Certification (COC) COM-5, the Compliance Matrix and COC deliverables are provided in **Attachment A. Attachment B** provides a schedule of project milestones for demolition, remediation, and construction.

d. **Explanation of Significant Permitting Activities and Changes to Schedule (as applicable)**

Since the November 12, 2015 CEC Commission adoption of the Order confirming that the August 3, 2015 Commission Decision stands as docketed with no modifications required, no significant permitting activities have taken place.

The updated project schedule is provided in **Attachment B**.

II. List of documents submitted to meet specific conditions

a. COMPLIANCE-6: Submit previous month's compliance report.
b. COMPLIANCE-12: Emergency Response Contingency Plan.
c. AQ-SC3: Construction Fugitive Dust Control - Air Quality Compliance Monthly Report.
d. AQ-SC5: Diesel-Fueled Engine Control – Air Quality Compliance Monthly Report.
e. BIO-6: Biologist Monthly Compliance Report.
f. CUL-5 and PAL-5: Worker Environmental Awareness Plan Training Certification Forms.
g. CUL-6/PAL-6: Paleontological Resources Monitoring Report.
h. CIVIL-3/STRUC-2: Non-Conformance Report Log.
i. SOCIO-1: Verification of payments of City fees.
j. SOIL&WATER-2: Construction water usage summary.
k. SOIL&WATER-9: Wastewater disposal summary.
l. GEN-2: Updated master drawing lists.
m. GEN-3: Proof of payment to the Delegate Chief Building Official (DCBO).
n. TSE-1: Updated electrical master drawing list.
o. VIS-1: Verification of major structure surface treatment.
p. WORKER SAFETY-3: Construction Safety Supervisor monthly report

III. Updated Compliance Matrices

The Compliance Matrix updated to reflect the Amended CECP is included in **Attachment A**.

IV. List of conditions satisfied during reporting period including reference to actions which satisfied certification

Air Quality: AQ-SC3, AQ-SC4, and AQ-SC5 - Air Quality Construction Compliance inspections and report. See **Attachment C**.

AQ-SC12 - Provide status on the start and conclusion of each phase of work.

Biology: BIO-2 - Monthly biological survey and reporting. See **Attachment D**.

Worker Environmental Awareness Program (WEAP) training: BIO-5, CUL-5, PAL-5 - See **Attachment E**.

CUL-6/PAL-6: Archaeologist/Paleontological Resources monitoring and reporting. See **Attachment F**

COM-11/NOISE-2: Noise hotline log and complaint resolution process. See **Attachment G**.

COMPLIANCE-6: Submitted previous months Monthly Compliance Report.

MECH-1: DCBO mechanical inspections.

TRANS-5: Performed roadway inspections. See **Attachment H**.

TRANS-6: Summary of transportation permits. See **Attachment I**.

TRANS-8: Encroachment permits statement. See **Attachment J.**

SOIL&WATER-2: Water usage summary. See **Attachment K**.

GEN-2: Update master drawing lists. See **Attachment L**.

GEN-3: Provide proof of payment to DCBO. See **Attachment M**.

CIVIL-1, GEN-6, MECH-1: DCBO plan approvals and DCBO mechanical inspections for November. See **Attachment N**.

TSE-1: Updated electrical master drawing summarizing drawings approved, submitted for approval, and still to be submitted. See **Attachment L**.

TSE-2: All electrical equipment has been commissioned and tested.

WORKER SAFETY-3: Construction Safety Supervisor Monthly Report. See **Attachment O**.

STRUC-2 and CIVIL-3: Non-Conformance Report Log. See **Attachment P**.

V. List of submittal deadlines missed during reporting period including explanation and estimate of when information will be provided

None

VI. Cumulative list of approved changes to conditions of certification

The California Energy Commission approved changes to the conditions of certifications docketed on August 3, 2015. An updated compliance matrix with amended conditions of certification is provided in **Attachment A**.

VII. List of any filings with, or permits issued by, other governmental agencies during the month

The Project Owner filed a breakdown reports with the San Diego Air Pollution Control District (SDAPCD) on November 12, 16, 20, 21, and 29, 2018 for a breakdowns that occurred on October 29, 2018, and November 2, 6, 9, and 15, 2018.

VIII. Project compliance activities over next two months including changes to schedule

The Project Owner will make the following compliance filings, as needed, over the next two months:

a. AQ-SC1: Air Quality Construction Mitigation Manager (AQCMM) will implement the monitoring and reporting requirements of AQ-SC2, AQ-SC3, AQ-SC4, and AQ-SC5.
b. AQ-SC12: Update the project phase status.
c. BIO-5: Worker Environmental Awareness Plan training.
d. BIO-6: Monitoring and reporting as required per the BRMIMP.
e. COMPLIANCE-6: Submit Monthly Compliance Reports.
f. COMPLIANCE-15: Provisional Closure Plan.
g. CUL-5: Worker Environmental Awareness Plan training.
h. PAL-5: Worker Environmental Awareness Plan training.
i. SOIL&WATER-2: Water usage summary.
j. SOIL&WATER-3: Submit Storm Water Pollution Prevention Plan and Notice of Intent.
k. SOIL&WATER-7: Industrial sewer connection permit.
l. TLSN-2: Submit electro-magnetic field study.
m. TRANS-5: Inspection reports on roadway conditions.
n. TRANS-6: Provide summary of overweight or oversized vehicle permits as needed.
o. TRANS-8: Provide a summary of encroachment permits obtained or utilized during the reporting month.
p. WASTE-1: Submit correspondence with San Diego County Department of Environmental Health as needed.
q. WORKER SAFETY-5: As needed worker training on Automated. External Defibrillator (AED) locations.

IX. Additions to on-site compliance file

Files are maintained onsite on a regular basis as COCs are implemented.

X. List of complaints, notices of violation, official warnings, citations received during month, description of resolutions of any resolved complaints and status of any unresolved complaints

There were no calls received on the project hotline in November 2018. The CEC received an inquiry from a local resident concerning status on the project and air and noise monitoring on October 23 and 31, 2018. The CEC responded directly to the resident via e-mail and written communication. A summary of the inquiry is included in the hotline summary table. A resident north of the CECP site inquired via NRG e-mail system about power lines and lighting coming from the CECP area. The resident was contacted and provided information concerning the power lines (not associated with CECP) and informed that lighting would be evaluated for modifications to reduce glare. We have communicated to the City of Carlsbad regarding the resident inquiry; they will update CECP in January regarding their evaluation. We anticipate that CECP lighting modifications will be completed in January 2019. The resident's inquiry is included in the hotline call log. A summary table of all calls logged and responded to is included in **Attachment G**.

ATTACHMENT A

COMPLIANCE-5 AND COMPLIANCE-6
KEY EVENTS AND COMPLIANCE MATRIX
NOVEMBER 2018

Carlsbad Energy Center Project

Docket No. 07-AFC-06C
Key Events List
Compliance Project Manager: Anwar Ali

Event Description	Date
Certification Date	7-11-2012 (Original), 11-12-2015 (Amended)
Obtain Site Control	1-Jan-16
Online Date	
Power Plant Site Activities:	
Start Site Mobilization	12-19-14 (Demo); 8-31-15 (Demo and Remediation); 2-10-17 (Construction)
Start Ground Disturbance	9-8-15, (Soil Remediation); 2-5-16 (below grade demolition, Berm Removal); 2-15-17 (Construction site prep)
Start Grading	2-15-17 (Construction site prep)
Start Construction	3-1-2017
Begin Pouring Major Foundation Concrete	4-13-2017
Begin Installation of Major Equipment	7-29-2017
Completion of Installation of Major Equipment	3-1-2018
First Combustion of Gas Turbine	5-2-2018
Obtain Building Occupation Permit	
Start Commercial Operations	12-Dec-18
Complete All Construction	
Transmission Line Activities:	
Start T/L Construction	12-13-2017
Synchronization with Grid and Interconnection	5-4-2018
Complete T/L Construction	4-14-2018
Fuel Supply Line Activities:	
Start Gas Pipeline Construction and Interconnection	11-13-2017
Complete Gas Pipeline Construction	4-24-2018
Water Supply Line Activities:	
Start Water Supply Line Construction	2-23-2017
Complete Water Supply Line Construction	5-9-2018

Carlsbad Energy Center Project
Pre-Construction Compliance Matrix: July 2014

Technical Area	COC Number	Subtask	Deliverable Req.	Description	Verification/Action/Submittal Required	Required Prior to Start of Construction?	Action Days	Submittal Timing	Submittal Trigger Event	Expected Submittal Date	Actual Submittal Date	Compliance Status	Priority (Tier 1, 2, or 3)	Comments
AQ	**91**		Y	The exhaust stack for the emergency fire pump engine shall be a minimum of 20 feet in height above grade and a maximum of 0.5 feet in diameter at the point of release and shall not be equipped with a rain cap unless it is of flapper valve design. [Rules 1200, 20.3(d)(2)]	The project owner shall submit to the CPM for review the exhaust stack specification at least 60 days before the installation of the stack.	N	60	prior to	Stack Installation	June 9, 2017	5/10/17	Completed		
AQ	**59**		Y	All testing conducted to measure concentrations or emissions of Volatile Organic Compounds (VOCs) shall include measurement of formaldehyde and the result shall be added to the result determined for other VOC concentrations or emissions, as applicable. Measurement of VOC emissions shall be conducted in accordance with EPA Method 18, or alternative methods approved by the District and EPA. Measurement of emissions of formaldehyde shall be conducted in accordance with EPA Method 316 or 323, or an alternative method approved by the District and EPA.	The project owner shall submit to the CPM for review and the District for approval the initial source test protocol and source test report within the timeframes specified in Conditions AQ-57 and AQ-58.	N	60	prior to	Initial Source Test	March 23, 2018	3/16/2018			SD APCD conditional approval 3/6/18.
AQ	**56**	c	Y		Additionally, the District shall be notified a minimum of 30 days prior to the test so that observers may be present unless otherwise authorized in writing by the District. [Rules 20.3(d)(1) and 1200 and 40 CFR Part60 Subpart KKKK and 40 CFR.	N	30	prior to	Source Test	April 22, 2018				
AQ	**36**		Y	The emissions of particulate matter less than or equal to ten microns in diameter (PM10) from the exhaust stacks of the combustion turbines shall not exceed 3.5 pounds per hour per turbine, averaged over all six combustion turbines, calculated as the arithmetic average of the most recent source test for each turbine. [Rule 20.3(d)(1),(2)]	Source tests demonstrating compliance with this condition shall be provided to the CPM and are due within the timeframes specified in Conditions AQ-57 and AQ-58.	N	45	after	Completion of RATA/Source Tests	July 6, 2018				
AQ	**90**	a	Y	Within 120 days of startup of each gas turbine, the owner or operator shall submit an initial notification to US EPA Region 9 in accordance with 40 CFR 63.6145(c) with the information specified in 40 CFR 63.6145(d). [40 CFR 63 Subpart YYYY]	Submit notification to US EPA Region 9	N	120	within	Initial Startup	August 31, 2018				
AQ	**106**		Y	The exhaust stack for the emergency generator engine shall be a minimum of 70 feet in height above grade and a maximum of 0.46 feet in diameter at the point of release and shall not be equipped with a rain cap unless it is of flapper valve design. [Rules 1200, 20.3(d)(2)]	The project owner shall submit to the CPM for review the exhaust stack specification at least 60 days before the installation of the stack.	N	60	prior to	Stack Installation	NA	NA	No diesel power emergency generator in final design of project.		
AQ	**107**		Y	The engine shall be EPA certified to the applicable emissions requirements for emergency engines of 40 CFR Part 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, based on the power rating of the engine and the engine model year. [40 CFR Part 60 Subpart IIII, and 40 CFR Part 63 Subpart ZZZZ, 17 CCR §93115]	The project owner shall provide to the CPM for review and approval engine documentation demonstrating compliance with the condition at least 30 days prior to purchasing the engine.	N	30	prior to	Emergency Generator Engine Purchase	NA	NA	No diesel power emergency generator in final design of project.		
AQ	**121**	a	Y	Within 120 days of startup of this engine, the owner or operator shall submit a notification to the District indicating that this source is a major source of HAP. [40 CFR 63 Subpart ZZZZ]	The project owner shall provide the notification as required to the District within the timeframe required and	N	120	after	Emergency Generator Engine Startup	NA	NA	No diesel power emergency generator in final design of project.		
AQ	**7**		N	The project owner shall provide access, facilities, utilities, and any necessary safety equipment, with the exception of personal protective equipment requiring individual fitting and specialized training, for source testing and inspection upon request of the Air Pollution Control District. [Rule 19]	The project owner shall provide facilities, utilities, and safety equipment for source testing and inspections upon request of the District, ARB, and the Energy Commission.	N	as needed	N/A	Source Testing/Inspections					
AQ	**9**		N	A rolling 12-calendar-month period is one of a series of successive consecutive 12-calendar-month periods. The initial 12-month-calendar period of such a series shall begin on the first day of the month in which the applicable beginning date for that series occurs as specified in this permit. [Rule 20.3 (d)(3), Rule 20.3(d)(8) and Rule 21]	None required	N	N/A	N/A	None					
AQ	**12**		N	All records required by this permit shall be maintained on site for a minimum of five years and made available to the District upon request. [Rule 1421]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	N/A							
AQ	**16**		N	A non-operational period is any five-consecutive-minute period when fuel does not flow to the combustion turbine. [Rule 20.3(d)(1)]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**19**		N	For the purposes of this permit, initial startup shall be defined for each combustion turbine as the first time that the combustion turbine combusts fuel on-site. [Rule 20.3]	None required	N	NA							
AQ	**20**		N	For each combustion turbine, a unit operating day, hour, and minute mean the following: A. A unit operating day means any calendar day in which the turbine combusts fuel. B. A unit operating hour means any clock hour in which the turbine combusts fuel. C. A unit operating minute means any clock minute in which the turbine combusts fuel and any clock minute that is part of a shutdown period. [Rule 21, 40 CFR Part 75, Rule 20.3(d)(1), 40 CFR Part 60 Subpart KKKK]	None Required	N	N/A							
AQ	**22**	b	N		and make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**23**		N	Unless otherwise specified in this permit, all continuous monitoring data shall be collected at least once every clock-minute. [Rules 69.3, 69.3.1, and 20.3(d)(1)]	None required.	N	N/A							
AQ	**30**		Y	When a combustion turbine is operating, the ammonia concentration (ammonia slip), shall not exceed 5.0 ppmvd corrected to 15 percent oxygen and averaged over a one-clock-hour period, except during commissioning, startup, and shutdown periods for that turbine. [Rule 1200]	The project owner shall provide the estimated ammonia concentrations and ammonia emissions based on the annual source test data, the CEMS data and SCR ammonia flow data to demonstrate compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					

Technical Area	COC Number	Subtask	Deliverable Req.	Description	Verification/Action/Submittal Required	Required Prior to Start of Construction?	Action Days	Submittal Timing	Submittal Trigger Event	Expected Submittal Date	Actual Submittal Date	Compliance Status	Priority (Tier 1, 2, or 3)	Comments
AQ	**32**		Y	When a combustion turbine is operating with post-combustion air pollution control equipment that controls oxides of nitrogen (NOX) emissions, the emission concentration of NOX, calculated as nitrogen dioxide (NO2), shall not exceed 13.6 ppmvd averaged over each one-clock-hour period and corrected to 15 percent oxygen, except for startup and shutdown periods for that turbine, as defined in Rule 69.3.1. This limit does not apply during any period in which the facility is subject to a variance from the emission limits contained in Rule 69.3.1. [Rule 69.3.1]	The project owner shall provide CEMS emissions data to demonstrate compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**45**		Y	Total emissions of CO during any rolling 12-calendar-month period in which a turbine commissioning period occurs from the equipment authorized to be constructed under this permit except emissions or emission units excluded from the calculation of aggregate potential to emit as specified in Rule 20.1 (d)(1) as it exists on the date the permit to operate for this equipment is approved shall not exceed the following limit for each rolling 12-calendar-month period, beginning with the 12-calendar-month period that begins with the month in which the earliest initial startup among the equipment authorized to be constructed under this permit occurs: 77.8 tons per year + N x 4.05 tons/yr Where N=number of turbines with commissioning periods occurring within the 12-calendar-month period. All calculations performed to show compliance with this limit shall be performed according to a protocol approved in advance by the District. [Rules 20.3(d)(2), 20.3(d)(5), 20.3(d)(8), and 21]	The project owner shall submit to the CPM and District the facility annual operating and emissions data demonstrating compliance with this condition as part of the fourth quarter's Quarterly Operation Reports (AQ-SC8).	N	N/A	4th Quarter	Quarterly Operation Reports					
AQ	**46**		Y	Total emissions from each combustion turbine shall not exceed 14.3 tons per year of NOx calculated as nitrogen dioxide and shall not exceed 4.73 tons per year of PM10. For the purposes of this condition emissions shall be calculated on a rolling 12-calendar-month basis beginning with the calendar month in which the initial startup of the turbine occurs. All calculations performed to show compliance with this limit shall be performed according to a protocol approved in advance by the District. [Rules 20.3(d)(2), 20.3(d)(5), 20.3(d)(8), and 21]	The project owner shall provide emissions summary data in compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8). The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**51**	`	Y	For each combustion turbine, the number of startup periods occurring during its commissioning period shall not exceed 350. [Rules 1200, 20.3(d)(2) and 21]	The project owner shall submit facility annual operating data demonstrating compliance with this condition as part of the fourth quarter's Quarterly Operation Reports (AQ-SC8).	N	N/A	4th Quarter	Quarterly Operation Reports					
AQ	**47**			Total emissions from the equipment permitted under APCD2003-PTO-001267, APCD2003-PTO-000791, APCD2003-PTO-000792, APCD2003-PTO-000793, APCD2003-PTO-001770 and APCD2003-PTO-005238 shall not exceed any of the following mass emission limits according to the schedule based on the number of turbines that have undergone their initial startup as described in the following table: Number of Turbines Started — NOx (ton/yr) — PM10 (ton/yr) 1 — No Limit — No Limit 2 — No Limit — No Limit 3 — 41.57 — No Limit 4 — 27.42 — 27.6 5 — 13.27 — 22.9 6 — 0.0 — 18.2 For the purposes of this condition, emissions shall be calculated on a rolling 12-calendar-month basis beginning with the calendar month in which 180 days has passed since the latest initial start from among the indicated number of turbines. Once a turbine has undergone its initial startup, it is included in determining the number of turbines started from the initial startup date going forward. All calculations performed to show compliance with this limit shall be performed according to a protocol approved in advance by the District. [Rules 20.3(d)(2), 20.3(d)(5), 20.3(d)(8), and 21]	This condition requires the existing Encina boilers and turbine to cease operations once the amended CECP is operational. The project owner shall provide emissions summary data in compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8). The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**87**		Y	The project owner shall file semiannual reports in accordance with 40 CFR §60.4375. [40 CFR Part 60 Subpart KKKK]	None Required	N								
AQ	**88**	a	Y	Each semiannual report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Each such semiannual compliance report shall be postmarked or delivered no later than January 30 or July 30, whichever date is the first date following the end of the semiannual reporting period. [40 CFR Part 60 Subpart KKKK and Rule 21]	The project owner shall provide the District's Compliance Division the semi-annual reports required in this condition within the due dates specified in this condition,	N	N/A	Semi-Annual	Semi-Annual Report					
AQ	**88**	b	Y		shall provide summaries of these semi-annual reports in the Quarterly Operation Reports (AQ-SC8) following each semi-annual report, and shall provide full copies of these reports to the CPM upon request.	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**90**	b	Y		The project owner shall provide a copy of the initial notification required by this condition to the CPM as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**110**		Y	Engine operation for maintenance and testing purposes shall not exceed 50 hours per calendar year. [Rule 69.4.1, 40 CFR Part 60 Subpart IIII, 17 CCR §93115]	The project owner shall submit to the CPM the emergency generator engine operating data demonstrating compliance with this condition as part of the Quarterly Operation Report (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**89**		N	All semiannual compliance reports shall be submitted to the District Compliance Division [40 CFR §60.7]	None required.	N								
AQ	**115**	a	Y	A non-resettable engine hour meter shall be installed on this engine, maintained in good working order, and used for recording engine operating hours. If a meter is replaced, the Air Pollution Control District's Compliance Division shall be notified in writing within ten calendar days. The written notification shall include the following information: a) Old meter's hour reading. b) Replacement meter's manufacturer name, model, and serial number if available and current hour reading on replacement meter. c) Copy of receipt of new meter or of installation work order. A copy of the meter replacement notification shall be maintained on site and made available to the Air Pollution Control District upon request. [Rule 69.4.1, 17 CCR §93115, and 40 CFR Part 60 Subpart IIII]	The project owner shall provide notification to the District as required by this condition	N	10	within	Meter Replacement					

Carlsbad Energy Center Project
Pre-Construction Compliance Matrix: July 2014

Technical Area	COC Number	Subtask	Deliverable Req.	Description	Verification/Action/Submittal Required	Required Prior to Start of Construction?	Action Days	Submittal Timing	Submittal Trigger Event	Expected Submittal Date	Actual Submittal Date	Compliance Status	Priority (Tier 1, 2, or 3)	Comments
AQ	**120**		Y	The owner or operator of this engine shall maintain a monthly operating log containing, at a minimum, the following: a) dates and times of engine operation; whether the operation was for maintenance and testing purposes or emergency use; and the nature of the emergency, if known; b) hours of operation for all uses other than those specified above and identification of the nature of that use. [Rule 69.4.1, 40 CFR 60 subpart IIII and 17 CCR §93115]	The project owner shall submit to the CPM the emergency generator engine operating data demonstrating compliance with this condition as part of the Quarterly Operation Report (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**29`**		Y	When a combustion turbine is operating, the volatile organic compound (VOC) concentration, calculated as methane, measured in the exhaust stack, shall not exceed 2.0 ppmvd corrected to 15 percent oxygen, averaged over a one-clock-hour period, except during commissioning, startup, and shutdown periods for that turbine. For purposes of determining compliance based on the CEMS, the District approved VOC/CO surrogate relationship and the CO CEMS data averaged over a one-clock-hour period shall be used. The VOC/CO surrogate relationship shall be verified and/or modified, if necessary, based on source testing. [Rule 20.3(d)(1)]	The project owner shall provide the CEMS data, using the appropriate CO/VOC surrogate relationship, to demonstrate compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**93**		N	This EPA certified engine shall be installed, configured, operated and maintained according to the manufacturer's emission related instructions. The owner or operator may not change any emission related settings unless those changes are permitted by the manufacturer and do not affect the engine's compliance with the emission standards to which it is certified. [40 CFR 60 subpart IIII]	The project owner shall make the site available for inspection of equipment and records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**94**		N	The engine shall be operated exclusively during emergencies as defined in Rule 69.4.1, 40 CFR Part 60 Subpart IIII or 17 CCR §93115 as applicable, or for maintenance and testing.	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**102**		N	The owner or operator shall keep manuals of recommended maintenance as provided by the engine and control equipment manufacturers for at least the same period of time as the engine to which the records apply is located on site. [Rule 69.4.1 and 40 CFR Part 60 Subpart IIII]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**104**		N	The owner or operator shall maintain documentation for all fuel deliveries identifying the fuel as CARB diesel. [Rule 69.4.1, 17 CCR §93115, and 40 CFR Part 60 Subpart IIII]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**108**		N	This EPA certified engine shall be installed, configured, operated and maintained according to the manufacturer's emission related instructions. The owner or operator may not change any emission related settings unless those changes are permitted by the manufacturer and do not affect the engine's compliance with the emission standards to which it is certified. [40 CFR 60 subpart IIII]	The project owner shall make the site available for inspection of equipment and records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**109**		N	The engine shall be operated exclusively during emergencies as defined in Rule 69.4.1, 40 CFR Part 60 Subpart IIII or 17 CCR §93115 as applicable, or for maintenance and testing.	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**111**		N	The engine shall only use CARB Diesel Fuel. [Rules 20.3(d)(1), 69.4.1, and 17 CCR §93115]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**112**		N	Visible emissions including crankcase smoke shall comply with Air Pollution Control District Rule 50. [Rule 50]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**113**		N	The equipment described above shall not cause or contribute to public nuisance. [Rule 51]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**114**		N	This engine shall not operate for nonemergency use during the following periods, as applicable: a) Whenever there is any school sponsored activity, if engine is located on school grounds or b) Between 7:30 and 3:30 PM on days when school is in session, if the engine is located within 500 feet of, but not on school grounds. This condition shall not apply to an engine located at or near any school grounds that also serve as the student's place of residence. [17 CCR §93115]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**115**	b	N		and shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**116**		N	The owner or operator shall conduct periodic maintenance of this engine and add-on control equipment, if any, as recommended by the engine and control equipment manufacturers or as specified by the engine servicing company's maintenance procedure. The periodic maintenance shall be conducted at least once each calendar year. [Rule 69.4.1 and 40 CFR Part 60 Subpart IIII]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**117**		N	The owner or operator shall keep manuals of recommended maintenance as provided by the engine and control equipment manufacturers for at least the same period of time as the engine to which the records apply is located on site. [Rule 69.4.1 and 40 CFR Part 60 Subpart IIII]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**118**		N	The owner or operator of this engine shall maintain records of all maintenance conducted on the engine, including a description of the maintenance and date the maintenance was performed. [Rule 69.4.1 and 40 CFR Part 60 Subpart IIII]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**119**		N	The owner or operator shall maintain documentation for all fuel deliveries identifying the fuel as CARB diesel. [Rule 69.4.1, 17 CCR §93115, and 40 CFR Part 60 Subpart IIII]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**121**	b	N		shall provide a copy of this notification to the CPM in the Quarterly Operation Report that follows the timing of the notification (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	3		Y	The project owner shall cancel permit Application Nos. APCD2007-APP-985745, APCD2007-APP-985747, and APCD2007-APP-985748 (the Licensed CECP) on or before the date construction commences for any equipment authorized for construction under this permit.	This condition requires canceling the previously licensed CECP permit application if the project owner decides to build the amended CECP. The project owner shall provide to the CPM documentation of the cancellation of the 2007 permit applications, if the project approved under the 2014 permit applications is built, by the time any construction activity approved under the 2014 permit applications commences.	Y		Prior to	Construction	April 1, 2016	4/18/2016	Completed		SCAPCD cancelled permit applications numbers: APCD2007-APP-985745, APCD2007-APP-985747, and APCD2007-APP-985748 on April 29, 2016.

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AQ	**86**	a	Y	For each combustion turbine, the project owner shall submit the following notification to the District and U.S. EPA, Region 9: a. A notification in accordance with 40 CFR Section 60.7(a)(1) delivered or postmarked not late than 30 calendar days after construction has commenced; [Rules 24 and 21 and 40 CFR Part 75, 40 CFR Part 60 Subpart KKKK, 40 CFR Part §60.7, 40 CFR Part 63 Subpart YYYY, and 40 CFR Part §63.9]	The project owner shall provide notification to the District and U.S. EPA Region 9 as required by this condition and shall provide copies of these notifications as part of the final monthly commissioning status reports (AQ-85) due the month after the notifications are sent.	N	30	within	Start of construction	March 30, 2017	3/15/17	Completed		
AQ	**54**		Y	Continuous monitors shall be installed on each SCR system prior to their initial operation to monitor or calculate, and record the ammonia solution injection rate in pounds per hour and the SCR outlet temperature in degrees Fahrenheit for each unit operating minute. The monitors shall be installed, calibrated and maintained in accordance with a District approved protocol, which may be part of the CEMS protocol. This protocol, which shall include the calculation methodology, shall be submitted to the District for written approval at least 90 days prior to initial startup of the gas turbines with the SCR system, unless a later date is approved in writing by the District.. The monitors shall be in full operation at all times when the turbine is in operation. [Rule 20.3(d)(1)]	The project owner shall submit to the CPM for review and the District for approval a turbine operation monitoring protocol in compliance with this condition at least 90 days prior to the initial startup.	N	90	prior to	Initial Startup	February 2, 2018	2/7/2018	Pending		Approval Pending
AQ	**70**		Y	No later than 90 calendar days prior to initial startup of each combustion turbine, the project owner shall submit a CEMS protocol to the District, for written approval that shows how the CEMS will be able to meet all District monitoring requirements. [Rules 69.3, 69.3.1, and 20.3(d)(1) and 40 CFR Part 60 Subpart KKKK, and 40 CFR Part 75]	The project owner shall submit to the CPM for review and the District for approval a CEMS operating protocol at least 90 days prior to the initial startup of each combustion turbine.	N	90	prior to	Initial Startup	February 2, 2018	2/7/2018	Pending		Approval Pending
AQ	**73**		Y	The oxides of nitrogen (NOx) and oxygen (O2) components of the CEMS shall be certified and maintained in accordance with applicable Federal Regulations including the requirements of sections 75.10 and 75.12 of title 40, Code of Federal Regulations Part 75 (40 CFR 75), the performance specifications of Appendix A of 40 CFR 75, the Quality Assurance procedures of Appendix B of 40 CFR 75 and the CEMS protocol approved by the District. The carbon monoxide (CO) components of the CEMS shall be certified and maintained in accordance with 40 CFR 60, Appendices B and F, unless otherwise specified in this permit, and the CEMS protocol approved by the District. [Rules 69.3, 69.3.1, and 20.3(d)(1) and 40 CFR Part 60 Subpart KKKK, and 40 CFR Part 75]	The project owner shall submit to the CPM for review and the District for approval a CEMS protocol, as required by AQ-70, which includes description of the methods of compliance with the requirements of this condition.	N	90	prior to	Initial Startup	February 2, 2018	2/7/2018	Pending	1	Approval Pending
AQ	**81**		Y	Each combustion turbine shall be equipped with continuous monitors to measure, calculate and record unit operating days, hours, and minutes and the following operational characteristics: A. Date and time; B. Natural gas flow rate to the combustion turbine during each unit operating minute, in standard cubic feet per hour; C. Total heat input to the combustion turbine based the fuels higher heating value during each unit operating minute, in million British thermal units per hour (MMBtu/hr); D. Higher heating value of the fuel on an hourly basis, in million British thermal units per standard cubic foot (Btu/scf); E. Stack exhaust gas temperature during each unit operating minute, in degrees Fahrenheit; F. Gross electrical power output during each unit operating minute in megawatts (MW); and G. Water injection rate in gallons per minute (gpm) or pounds per hour (lb/hr). The values of these operational characteristics shall be recorded each unit operating minute. The monitors shall be installed, calibrated, and maintained in accordance with a turbine operation monitoring protocol, which may be part of the CEMS protocol, approved by the District, which shall include any relevant calculation methodologies. The monitors shall be in full operation at all times when the combustion turbine is in operation. Calibration records for the continuous monitors shall be maintained on site and made available to the District upon request. [Rules 69.3, 69.3.1, and 20.3(d)(1) and 40 CFR Part 60 Subpart KKKK, and 40 CFR Part 75]	The project owner shall submit to the CPM for review and the District for approval a turbine operation monitoring protocol in compliance with this condition and within the timeframes specified in AQ-82 and the project owner shall make the site available for inspection of records and equipment required in this condition by representatives of the District, ARB, and the Energy Commission.	N	90	prior to	Initial Startup	February 2, 2018	2/7/2018	Pending		Approval Pending
AQ	**82**		Y	At least 90 calendar days prior to initial startup of each combustion turbine, the project owner shall submit a turbine monitoring protocol to the District for written approval. This may be part of the CEMS protocol. [Rule 69.3, 69.3.1, and 20.3 (d)(1) and 40 CFR Part 60 Subpart KKKK, and 40 CFR Part75]	The project owner shall submit to the CPM for review and the District for approval a turbine monitoring protocol in compliance with this condition at least 90 days prior to the initial startup of each combustion turbine.	N	90	prior to	Initial Startup	February 2, 2018	2/7/2018	Pending		Approval Pending
AQ	**67**		N	The sulfur content of the combustion turbine fuel shall be sampled not less than once each calendar quarter in accordance with a protocol approved by the District, which shall be submitted to the District for approval not later than 90 days before the earliest initial startup dates for any of the combustion turbines and measured with ASTM D1072–90 (Reapproved 1994), Standard Test Method for Total Sulfur in Fuel Gases; ASTM D3246–05, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry; ASTM D4468–85 (Reapproved 2000), Standard Test Method for Total Sulfur in Gaseous Fuels by Hydrogenolysis and Rateometric Colorimetry; ASTM D6228–98 (Reapproved 2003), Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Flame Photometric Detection; or ASTM D6667–04, Standard Test Method for Determination of Total Volatile Sulfur in Gaseous Hydrocarbons and Liquefied Petroleum Gases by Ultraviolet Fluorescence or an alternative test method approved by the District and EPA. [Rule 20.3 (d)(1), Rule 21, and 40 CFR Part 75]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	90	prior to	Initial Startup	February 2, 2018	2/7/2018	Pending		Approval Pending

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AQ	**69**		Y	A continuous emission monitoring system (CEMS) shall be installed on each combustion turbine and properly maintained and calibrated to measure, calculate and record the following, in accordance with the District approved CEMS protocol: A. Clock-hourly average concentration of oxides of nitrogen (NOX) in parts per million (ppmvd) both uncorrected and corrected to 15 percent oxygen; B. Clock-hourly average concentration of carbon monoxide (CO) in parts per million (ppmvd) both uncorrected and corrected to 15 percent oxygen; C. Percent oxygen (O2) in the exhaust gas for each unit operating minute; D. Clock-hourly mass emissions of oxides of nitrogen (NOx) calculated as NO2, in pounds; E. Cumulative mass emissions of oxides of nitrogen (NOx) calculated as NO2, in each startup and shutdown period, in pounds; F. Calendar-daily mass emissions of oxides of nitrogen (NOx) calculated as NO2, in pounds; G. Calendar monthly mass emissions of oxides of nitrogen (NOx) calculated as NO2, in pounds; H. Rolling four unit operating hour average concentration of oxides of nitrogen (NOx) in parts per million (ppmvd) corrected to 15 percent oxygen; I. Rolling four unit operating hour average emission rate of oxides of nitrogen (NOx), calculated as NO2, in pounds per megawatt-hour (lb/MWh). J. Calendar quarter, calendar year, and rolling 12-calendar-month period mass emissions of oxides of nitrogen (NOx) calculated as NO2, in tons; K. Cumulative mass emissions of carbon monoxide (CO) in each startup and shutdown period, in pounds L. Clock-hourly mass emissions of carbon monoxide (CO), in pounds; M. Calendar-daily mass emission of carbon monoxide (CO), in pounds; N. Calendar-monthly mass emission of carbon monoxide (CO), in pounds; O. Rolling 12-calendar-month period mass emission of carbon monoxide (CO), in tons; P. Average concentration of oxides of nitrogen (NOx) and carbon monoxide (CO) in parts per million (ppmvd) both uncorrected and corrected to 15 percent oxygen during each unit operating minute; and	The project owner shall submit to the CPM for review and the District for approval a CEMS protocol, as required by AQ-70, which includes description of the methods of compliance with the requirements of this condition.	N	90	prior to	Initial Startup	February 2, 2018	2/7/2018	Pending		Approval Pending
AQ	**79**		Y	At least 90 calendar days prior to the Initial Emissions Source Test, the project owner shall submit a monitoring protocol to the District for written approval which shall specify a method of determining the VOC/CO surrogate relationship that shall be used to demonstrate compliance with all VOC emission limits when using CEMS data. This protocol can be provided as part of the Initial Source Emissions Testing Protocol. [Rule 20.3 (d)(1)]	The project owner shall submit to the CPM for review and the District for approval the monitoring protocol as part of the initial source test protocol in compliance with requirements of this condition at least 90 days prior to the initial source test.	N	90	prior to	Initial Source Test	February 21, 2018				
AQ	**56**	b	Y		Testing witnessed by the District, a proposed test protocol shall be submitted to the District for written approval at least 60 days prior to source testing.	N	60	prior to	Source Test	March 23, 2018				
AQ	**57**	a	Y	All source test or other tests required by this permit shall be performed by the District or an independent contractor approved by the District. Unless otherwise specified in this permit or authorized in writing by the District, if testing will be performed by an independent contractor and witnessed by the District, a proposed test protocol shall be submitted to the District for written approval at least 60 days prior to source testing. Additionally, the District shall be notified a minimum of 30 days prior to the test so that observers may be present unless otherwise authorized in writing by the District. [Rules 20.3(d)(1) and 1200 and 40 CFR Part60 Subpart KKKK and 40 CFR §60.8]	The project owner shall submit to the CPM for review and the District for approval the initial source test protocol at least 60 days prior to the initial source test.	N	60	prior to	Initial Source Test	March 23, 2018	3/16/2018; 4/18/2018; 5/23/18; 7/23/18		1	Protocol submitted 3/16/18. 30 Day notice submitted 4/18/18. Pending APCD approval
AQ	**61**		Y	Not later than 60 calendar days after completion of the commissioning period for each combustion turbine, an Initial Emissions Source Test shall be conducted on that turbine to demonstrate compliance with the NOX, CO, VOC, PM10, and ammonia emission standards of this permit. The source test protocol shall comply with all of the following requirements: a. Measurements of NOX and CO concentrations and emissions and oxygen (O2) concentration shall be conducted in accordance with U.S. Environmental Protection Agency (EPA) methods 7E, 10, and 3A, respectively, and District source test Method 100, or alternative methods approved by the District and EPA; b. Measurement of VOC concentrations and emissions, except for formaldehyde, shall be conducted in accordance with EPA Method 18, or an alternative method approved by the District and EPA; c. Measurement of formaldehyde concentrations and emissions shall be conducted in accordance with EPA Method 316 or 323, as specified by the District, or an alternative method approved by the District and EPA; d. Total VOC concentrations and emissions shall be the sum of those concentrations and emissions determined using Method 18 and the formaldehyde concentrations and emissions; e. Measurements of ammonia concentrations shall be conducted in accordance with Bay Area Air Quality Management District Method ST-1B or an alternative method approved by the District and EPA; f. Measurements of PM10 emissions shall be conducted in accordance with EPA Methods 201A and 202 or an alternative method approved by the district and EPA; g. Source testing shall be performed at the normal load level, as specified in 40 CFR Part 75 Appendix A Section 6.5.2.1 (d), provided it is not less than 80 percent of the combustion turbine's rated load unless it is demonstrated to the satisfaction of the District that the combustion turbine cannot operate under these conditions . If the demonstration is accepted, then emissions source testing shall be performed at the highest achievable continuous power level. The District may specify additional testing at different load levels or operational conditions to ensure compliance with the emission and concentration limits of this permit and District Rules and Regulations;	The project owner shall submit to the CPM for review and the District for approval the initial source test protocol and source test report within the timeframes specified in Conditions AQ-57 and AQ-58.	N	60	prior to	Initial Source Test	March 23, 2018	3/16/18			

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AQ	**71**	a	Y	No later than the earlier of 90 unit operating days or 180 calendar days after each combustion turbine commences commercial operation, a Relative Accuracy Test Audit (RATA) and other required certification tests shall be performed and completed on that turbine's NOx CEMS in accordance with 40 CFR Part 75 Appendix A and on the CO CEMS in accordance with 40 CFR Part 60 Appendix B. The RATAs shall demonstrate that the NOx and CO CEMS comply with the applicable relative accuracy requirements. At least 60 calendar days prior to the test date, the project owner shall submit a test protocol to the District for written approval. Additionally, the District and U.S. EPA Region 9 shall be notified a minimum of 45 calendar days prior to the test so that observers may be present. Within 45 calendar days of completion of this test, a written test report shall be submitted to the District for approval. For purposes of this condition, commences commercial operation is defined as the first instance when power is sold to the electrical grid. [Rules 69.3, 69.3.1, and 20.3(d)(1) and 40 CFR Part 60 Subpart KKKK, and 40 CFR Part 75]	The project owner shall submit to the CPM for review and the District for approval the RATA certification test protocol at least 60 days prior to the RATA test and	N	60	prior to	RATA/Source Tests	March 23, 2018				
AQ	**71**	c	Y		shall notify the CPM, the U.S. EPA Region 9, and District of the RATA test date at least 45 days prior to conducting the RATA and other certification tests.	N	45	prior to	RATA/Source Tests	April 7, 2018	3/21/2018			
AQ	**72**		Y	A monitoring plan in conformance with 40 CFR 75.53 shall be submitted to U.S. EPA Region 9 and the District at least 45 calendar days prior to the Relative Accuracy Test Audit (RATA), as required in 40 CFR 75.62. [40 CFR Part 75]	The project owner shall submit to the CPM for review and the District and the U.S. EPA Region 9 for approval a monitoring plan in compliance with this condition at least 45 days prior to the RATA test.	N	45	prior to	RATA/Source Tests	April 7, 2018	3/27/2018			
AQ	**57**	b	Y		The project owner shall notify the CPM and District no later than 30 days prior to the proposed source test date and time.	N	30	prior to	Source Test	April 22, 2018	4/18/2018; 6/18/18; 6/25/18; 8/7/18; 8/10/18	Completed		
AQ	**86**	1	Y	In addition, the applicant shall notify the District when: (1) construction is complete by submitting a Construction Completion Notice before operating any unit that is the subject of this permit,		N	1	prior to	Start up	April 27, 2018	5/2/2018; 5/30/18; 7/1/18; 8/5/18	Completed		
AQ	**86**	2	Y	(2) each combustion turbine first combusts fuel by submitting a First Fuel Fire Notice within 5 calendar days of the initial operation of the unit,		N	5	after	Initial Startup	May 8, 2018	5/4/2018; 6/7/18; 7/9/18; 8/16/18; 8/29/18	Completed		
AQ	**85**		Y	Within 30 calendar days after the end of the commissioning period for each combustion turbine, the project owner shall submit a written report to the District. This report shall include, at a minimum, the date the commissioning period started and ended, the dates and times of all startup and shutdown periods, the emissions of NOx and CO during other periods, and the emissions of NOx and CO during steady state operation. This report shall also detail any turbine or emission control equipment malfunction, upset, repairs, maintenance, modifications, or replacements affecting emissions of air contaminants that occurred during the commissioning period. All of the following continuous monitoring information shall be reported for each minute and, except for cumulative mass emissions, averaged over each hour of operation: A. Concentration of oxides of nitrogen (NOx) in parts per million (ppmvd) uncorrected and corrected to 15 percent oxygen; B. Concentration of carbon monoxide (CO) in parts per million (ppmvd) uncorrected and corrected to 15 percent oxygen; C. Percent oxygen (O2) in the exhaust gas; D. Mass emissions of oxides of nitrogen (NOx) calculated as NO2 in each startup and shutdown period, in pounds; E. Cumulative mass emissions of oxides of nitrogen (NOx) calculated as NO2 in each startup and shutdown period, in pounds; F. Cumulative mass emissions of carbon monoxide (CO) in each startup and shutdown period, in pounds G. Mass emissions of carbon monoxide (CO), in pounds; H. Total heat input to the combustion turbine based on the fuel's higher heating value, in million British thermal units per hour (MMBtu/hr); I. Higher heating value of the fuel on an hourly basis, in million British thermal units per standard cubic foot (MMBtu/scf); J. Gross electrical power output of the turbine, in megawatts hours (MWh); and K. SCR outlet temperature, in degrees Fahrenheit; L. Water injection rate in gallons per minute (gpm) or pounds per hour (lb/hr), and M. Ammonia injection rate in pounds per hour (lb/hr). The hourly average information shall be submitted in writing and in an electronic format	A log of the dates, times, and cumulative unit operating hours when fuel is being combusted during the commissioning period shall be maintained by the project owner. The project owner shall submit, commencing one month from the time of gas turbine first fire, a monthly commissioning status report throughout the duration of the commissioning phase that demonstrates compliance with the requirements listed in this condition. The monthly commissioning status report shall be submitted to the CPM by the tenth of each month for the previous month, for all months with turbine commissioning activities following the turbine first fire date. The project owner shall also provide the reporting required by this condition to the District and CPM within 30 day of completing commissioning of each turbine. The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	10	following previous month	Monthly Commissioning Reports	May 13, 2018	6/11/2018			
AQ	**86**	b	Y	b. A notification in accordance with 40 CFR Section 60.7 (a)(3) delivered or postmarked within 15 calendar days after initial startup; and		N	15	after	Initial Startup	May 18, 2018	5/4/2018; 6/7/18; 7/9/18; 8/16/18; 8/29/18	Completed		
AQ	**4**		N	Prior to the earliest initial startup date for any of the combustion turbines, the project owner shall surrender to the District Class A Emission Reduction Credits (ERCs) in an amount equivalent to 47.94 tons per year of oxides of nitrogen (NOx) to offset the net maximum allowable increase of 39.9 tons per year of NOx emissions for the equipment described in District Application Nos. APCD2014-APP-003480, APCD2014-APP-003481, APCD2014-APP-003482, APCD2014-APP-003483, APCD2014-APP-003484, APCD2014-APP-003485, APCD2014-APP-003486, APCD2014-APP-003487. [Rule 20.3(d)(8)]	The project owner shall submit to the CPM, within 15 days of ERC surrender to the District, information demonstrating compliance with this condition.	N	15	after	ERC Surrender	May 18, 2018	4/24/2018	Completed		
AQ	**85**		Y		The project owner shall also provide the reporting required by this condition to the District and CPM within 30 day of completing commissioning of each turbine.	N	30	after	Each Turbine Commissioning	June 21, 2018	8/10/2018			Unit 10 submitted 8/10/2018
AQ	**35**		Y	The emissions of particulate matter less than or equal to ten microns in diameter (PM10) from the exhaust stacks of the combustion turbine shall not exceed 5.0 pounds per hour for each combustion turbine. [Rule 20.3(d)(1)(2)]	Source tests demonstrating compliance with this condition shall be provided to the CPM and are due within the timeframes specified in Conditions AQ-57 and AQ-58.	N	45	after	Completion of RATA/Source Tests	July 6, 2018				
AQ	**37**		Y	The discharge of particulate matter from the exhaust stack of each combustion turbine shall not exceed 0.10 grains per dry standard cubic foot (0.23 grams/dscm) corrected to 12 percent carbon dioxide. The District may require periodic testing to verify compliance with this standard. [Rule 53]	Source tests demonstrating compliance with this condition shall be provided to the CPM and are due within the timeframes specified in Conditions AQ-57 and AQ-58.	N	45	after	Completion of RATA/Source Tests	July 6, 2018				

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AQ	**58**		Y	Unless otherwise specified in this permit or authorized in writing by the District, within 45 days after completion of a source test or Relative Accuracy Test Audit (RATA) performed by an independent contractor, a final test report shall be submitted to the District for review and approval. [Rules 20.3(d)(1) and 1200 and 40 CFR Part 60 Subpart KKKK, 40 CFR §60.8, and 40 CFR Part 75]	The project owner will submit all RATA or source test reports to the CPM for review and the District for approval within 45 days of the completion of those tests.	N	45	after	completion of RATA/Source Tests	July 6, 2018	8/29/18; 9/6/18; 9/7/18; 10/19/18; 10/25/18	Completed		Unit 10 8/29/18; Unit 9 9/6/18; Unit 8 9/7/18; Unit 6 10/19/18; Unit 6 10/25/18
AQ	**63**		Y	Relative Accuracy Test Audit (RATAs) and all other required certification tests shall be performed and completed on the NOx CEMS in accordance with applicable provisions of 40 CFR Part 75 Appendix A and B and 40 CFR §60.4405 and on the CO CEMS in accordance with applicable provisions of 40 CFR Part 60 Appendix B and F. [Rule 21, Rule 20.3 (d)(1), 40 CFR Part 60 Subpart KKKK and 40 CFR Part 75]	The results and field data collected during source tests required by this condition shall be submitted to the CPM for review and the District for approval as required by Condition AQ-58.	N	45	after	completion of RATA/Source Tests	July 6, 2018				
AQ	**71**	d	Y		The project owner will submit all RATA or source test reports to the CPM for review and the District for approval within 45 days of the completion of those tests.	N	45	after	completion of RATA/Source Tests	July 6, 2018				
AQ	**64**		Y	Not later than 60 calendar days after completion of the commissioning period for each combustion turbine, an initial emission source test for toxic air contaminants shall be conducted on that turbine to determine the emissions of toxic air contaminants from the combustion turbines. At a minimum the following compounds shall be tested for, and emissions, if any, quantified: a. Acetaldehyde b. Acrolein c. Benzene d. Formaldehyde e. Toluene f. Xylenes This list of compounds may be adjusted by the District based on source test results to ensure compliance with District Rule 1200 and other conditions of this permit aredemonstrated. The District may require one or more or additional compounds to be quantified through source testing as needed to ensure compliance with Rule 1200 and other conditions of this permit. Within 60 calendar days after completion of a source test performed by an independent contractor, a final test report shall be submitted to the District for review and approval. [Rule 1200]	The results and field data collected during source tests required by this condition shall be submitted to the CPM for review and the District for approval within 60 days of testing.	N	60	after	Source Test	July 21, 2018	8/29/18; 9/6/18; 9/7/18; 10/19/18; 10/25/18	Completed		
AQ	**65**		Y	The District may require one or more of the following compounds, or additional compounds to be quantified through source testing periodically to ensure compliance with Rule 1200 and other conditions of this permit and to quantify toxic emissions: a. Acetaldehyde b. Acrolein c. Benzene d. Formaldehyde e. Toluene f. Xylenes If the District requires the project owner to perform this source testing, the District shall request the testing in writing a reasonable period of time prior to the testing date. [Rule 1200 California H&S Code §41510]	The results and field data collected during source tests required by the District under this condition shall be submitted to the CPM for review and the District for approval within 60 days of testing.	N	60	after	Source Testing	July 21, 2018				
AQ	**86**	c	Y	c. An Initial Notification in accordance with 40 CFR Section 63.6145(c) and 40 CFR Section 63.9(b)(2) submitted no later than 120 calendar days after the initial startup of the turbine.		N	120	after	Initial Startup	August 31, 2018	8/30/18; 9/27/18; 11/2/18	Pending		Unit 10 8/30/18; Unit 9 9/27/18; Unit 8 11/2/18
AQ	**92**		Y	The engine shall be EPA certified to the applicable requirements for emergency fire pump engines of 40 CFR Part 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, based on the power rating of the engine and the engine model year. 40 CFR Part 60 Subpart IIII, and 40 CFR Part 63 Subpart ZZZZ, 17 CCR §93115]	The project owner shall provide to the CPM for review and approval engine documentation demonstrating compliance with the condition at least 30 days prior to purchasing the engine.	N	30	prior to	Purchase of Emergency Fire Pump Engines		5/6/16	Completed		Staff Approved 5/31/16
AQ	**8**	a	Y	The project owner shall obtain any necessary District permits for all ancillary combustion equipment including emergency engines, prior to on-site delivery of the equipment. [Rule 10]	The project owner shall submit any proposed air permit modification to the CPM within five working days of its submittal either by 1) the project owner to an agency, or 2) receipt of proposed modifications from an agency.	Y/N	5	within	Submittal	as needed			1	
AQ	52		Y	Not later than 90 calendar days prior to the start of construction, unless a later date is approved in writing by the District, the project owner shall submit to the District the final selection, design parameters and details of the selective catalytic reduction (SCR) and oxidation catalyst emission control systems for the combustion turbines including, but not limited to, the minimum temperature for the SCR at which ammonia injection is feasible; the catalyst volume, catalyst material, catalyst manufacturer, space velocity and area velocity at full load; and control efficiencies of the SCR for controlling NOx emissions and the oxidation catalyst CO and VOC emissions at temperatures between the minimum and maximum operating temperatures at space velocities corresponding to 100 percent and 25 percent load. Such information may be submitted to the District as trade secret and confidential pursuant to District Rules 175 and 176. [Rules 20.3(d)(1) and 14]	The project owner shall submit to the CPM for review and District for approval final selection, design parameters and details of the SCR and oxidation catalyst emission control systems at least 90 days prior to the start of construction.	Y	90	prior to	Construction	Feb, 16	2/15/2016	Completed		SDAPCD approved 4/14/16. Approved by the CEC Stat of construction letter 6/3/16.
AQ	**21**		Y	The exhaust stacks for each combustion turbine shall be at least 90 feet in height above site base elevation, and with an interior exhaust stack diameter of no more than 13.5 feet at the point of release unless it is demonstrated to the District that all requirements of District rules 20.3 and 1200 are satisfied with a different stack configuration. [Rules 20.3(d)(2) and 1200]	The project owner shall submit to the CPM for review the exhaust stack specification at least 60 days before initial construction of the stack.	N	60	Prior to	Equipment Construction	NA	8/25/2016	Completed		
AQ	**2**			The project owner shall cancel all applications for permits and/or retire all permits to operate for all of the equipment authorized to be constructed under this permit on or before the date construction commences for any equipment authorized for construction under Application Numbers APCD2007-APP-985745, APCD2007-APP-985747, or APCD2007-APP-985748 (the Licensed CECP).	This condition requires canceling the amended CECP permit applications if the project owner decides to build the previously licensed CECP. The project owner shall provide to the CPM documentation of the cancellation of the 2014 permit applications, if the project approved under the 2007 permit applications is built, by the time any construction activity approved under the 2007 permit applications commences.	N	as needed	N/A	Cancellation of the 2014 permit applications	NA	NA			ACECP started construciton in 2017.

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AQ	**75**		Y	When the CEMS is not recording data and the combustion turbine is operating, hourly NOx emissions for purposes of calendar year and rolling 12-calendar-month period emission calculations shall be determined in accordance with 40 CFR 75 Subpart C. Additionally, hourly CO emissions for rolling 12-calendar-month period emission calculations shall be determined using CO emission factors to be determined from source test emission factors, recorded CEMS data, and fuel consumption data, in terms of pounds per hour of CO for the gas turbine. Emission calculations used to determine hourly emission rates shall be reviewed and approved by the District, in writing, before the hourly emission rates are incorporated into the CEMS emission data. [Rules 20.3(d)(3) and 21 and 40 CFR Part 75]	The project owner shall provide the District for approval and the CPM for review all emission calculations required by this condition, in a manner and time required by the District, and shall provide notation of when such calculations are used in place of operating CEMS data in the Quarterly Operation Reports (AQ-SC8).	N	TBD	prior to	Incorporation into CEMS emission data	TBD				
AQ	**8**	b	Y		The project owner shall submit all modified air permits to the CPM within 15 days of receipt.	N	15	after	Air Permit Modification	TBD				
AQ	**62**		Y	A renewal source test and a NOx and CO Relative Accuracy Test Audit (RATA) shall be periodically conducted on each combustion turbine to demonstrate compliance with the NOx, CO, VOC, PM10, and ammonia emission standards of this permit and applicable relative accuracy requirements for the CEMS systems using District approved methods. The renewal source test and the NOx and CO RATAs shall be conducted in accordance with the applicable RATA frequency requirements of 40 CFR75, Appendix B, Sections 2.3.1 and 2.3.3. The renewal source test shall be conducted in accordance with a protocol complying with all the applicable requirements of the source test protocol for the Initial Emissions Source Test. [Rule 69.3, 69.3.1, and 20.3(d)(1) and 40 CFR Part 60 Subpart KKKK, and 40 CFR Part 75]	The project owner shall submit to the CPM for review and the District for approval the periodic RATA and source test protocols, and RATA source test reports within the timeframes specified in Conditions AQ-57 and AQ-58.	N	45	after	completion of RATA/Source Tests	TBD				
AQ	**86**	3	Y	and (3) each combustion turbine first generates electrical power that is sold by providing written notice within 5 days of this event.		N	5	after	Sale of Power	TBD	5/4/2018; 6/7/18; 7/9/18; 8/16/18; 8/29/18	Completed		
AQ	**10**	a	Y	Pursuant to 40 CFR §72.30(b)(2)(ii) of the Federal Acid Rain Program, the project owner shall submit an application for a Title IV Operating Permit at least 24 months prior to the date the first turbine commences operation as defined in 40 CFR §72.2.. [40 CFR Part 72]	submit an application for a Title IV Operating Permit at least 24 months prior to the initial startup of the combustion turbines	N	24 Months	Prior to	Initial Startup		3/13/2015	Completed		
AQ	**10**	b	Y		The project owner shall submit to the CPM copies of the acid rain permit application within five working days of its submittal by the project owner to the District.	N	5	within	Submittal		3/18/2015	Completed		
AQ	**1**		Y	The equipment authorized to be constructed under this permit is described in Application Nos. APCD2014-APP-003480, APCD2014-APP-003481, APCD2014-APP-003482, APCD2014-APP-003483, APCD2014-APP-003484, APCD2014-APP-003485, APCD2014-APP-003486, APCD2014-APP-003487.	The project owner shall provide copies of any applications to alter the equipment or the permit conditions for the equipment covered by the permit applications numbered above to the CPM within 5 days of sending such applications to the District. The project owner shall make the site available for inspection of equipment and records by representatives of the District, ARB, and the Energy Commission.	N	5	after	Submittal of Applications to Alter Equipment or permit conditions for the permitted equipment to the District					
AQ	**5**		N	This equipment shall be properly maintained and kept in good operating condition at all times and, to the extent practicable, the project owner shall maintain and operate the equipment and any associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions. [Rule 21 and 40 CFR §60.11]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**6**		N	The project owner shall operate the project in accordance with all data and specifications submitted with the application under which this license is issued and District Application Nos. 2014-APP-003480, 2014-APP- 003481, 2014-APP-003482, 2014-APP-003483, 2014-APP-003484, 2014- APP-003485, 2014-APP-003486, and 2014-APP-003487. [Rule 14]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**11**		Y	The project owner shall comply with all applicable provisions of 40 CFR Part 73, including requirements to offset, hold and retire sulfur dioxide (SO2) allowances. [40 CFR Part 73]	The project owner shall submit to the CPM and the District the combustion turbine generator (CTG) annual SO2 emission total and SO2 allowance information demonstrating compliance with all applicable provisions of 40 CFR 73 as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**13**		**Y**	The fire pump and emergency diesel engines shall not be operated for maintenance and testing purposes at the same time that any combustion turbine is operating during a commissioning period. [Rule 20.3(d)(2)]	The project owner shall maintain records of the fire-pump and emergency diesel engine operation during the combustion turbine initial commissioning period that shows compliance with this condition and shall provide that data with the Monthly Compliance Reports required during any commissioning period.	N	N/A	Monthly	Monthly Compliance Report	June 1, 2018	As needed in MCR	On going		
AQ	**14**		Y	For purposes of determining compliance with the emission limits of this permit, a shutdown period is the 13-consecutive-minute period preceding the moment at which fuel flow to the combustion turbine ceases. [Rule 20.3 (d)(1)]	The project owner shall submit to the CPM the CTG shutdown event duration data demonstrating compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).	N	as needed	Quarterly	Quarterly Operation Reports					
AQ	**15**		Y	Unless otherwise noted in a specific condition, a startup period is the period of time that begins when fuel flows to the combustion turbine following a non-operational period. For purposes of determining compliance with the emission limits of this permit, the duration of a startup period shall not exceed 25 consecutive minutes. [Rule 20.3(d)(1)]	The project owner shall submit to the CPM the CTG startup event duration data demonstrating compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).	N	as needed	Quarterly	Quarterly Operation Reports					
AQ	**17**		N	A Continuous Emission Monitoring System (CEMS) protocol is a document approved in writing by the District that describes the methodology and quality assurance and quality control procedures for monitoring, calculating, and recording stack emissions from the combustion turbine that is monitored by the CEMS. [Rules 69.3, 69.3.1, and 20.3(d)(1) and 40 CFR Part 60 Subpart KKKK, and 40 CFR Part 75]	The project owner shall maintain a copy of the CEMS protocol on site and provide it for inspection on request by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**18**		N	For each combustion turbine, the commissioning period is the period of time commencing with the initial startup of that turbine and ending, after 213 hours of turbine operation, or the date the project owner notifies the District the commissioning period has ended. For purposes of this condition, the number of hours of turbine operation is defined as the total unit operating minutes during the commissioning period divided by 60 rounded to the nearest hundredth of an hour. [Rule 20.3(d)(1)]	The project owner shall provide commissioning event data that shows compliance with the commissioning period operation limits for each combustion turbine in the Monthly Compliance Reports and shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	Monthly	MCR				1	

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AQ	**22**	a	Y	The combustion turbines shall be fired on Public Utility Commission (PUC) quality natural gas. The project owner shall maintain, on site, quarterly records of the natural gas sulfur content expressed in units of grains of sulfur compounds per 100 dscf of natural gas and hourly records of the higher and lower heating values of the natural gas expressed in Btu/scf. These records shall be provided to District personnel upon request. [Rule 20.3(d)(1)] Natural gas sulfur content records must be kept with a minimum reporting limit of 0.25 grains sulfur compounds per 100 dscf of natural gas. [Rule 20.3(d)(1)]	The project owner shall submit the quarterly fuel sulfur content values in the in the Quarterly Operation Reports (AQ-SC8)	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**24**		Y	For purposes of determining compliance with emission limits based on source testing, the average of three subtests shall be used. For purposes of determining compliance with emission limits based on a Continuous Emission Monitoring System (CEMS), data collected in accordance with the CEMS protocol shall be used and the averages for averaging periods specified herein shall be calculated as specified in the CEMS protocol. [Rules 69.3, 69.3.1, 20.3(d)(1) and 40 CFR Part 60 Subpart KKKK, 40 CFR Part 60 Appendix B and F, and 40 CFR Part 75]	Source tests demonstrating compliance with this condition shall be provided to the CPM and are due within the timeframes specified in Conditions AQ-57 and AQ-58. CEMS data summaries shall be submitted to the CPM as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**25**		Y	For purposes of determining compliance with emission limits based on CEMS data, all CEMS calculations, averages, and aggregates shall be performed in accordance with the CEMS protocol approved in writing by the District. [Rules 69.3, 69.3.1, 20.3(d)(1) and 40 CFR Part 60 Subpart KKKK, 40 CFR Part 60 Appendix B and F, and 40 CFR Part 75]	CEMS data summaries shall be submitted to the CPM as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**26**		Y	For each emission limit expressed as pounds, pounds per hour, or parts per million based on a one-hour or less averaging period or compliance period, compliance shall be based on using data collected at least once every minute when compliance is based on CEMS data except as specified in the District approved CEMS Protocol. [Rules 69.3, 69.3.1, and 20.3(d)(1)]	CEMS data summaries shall be submitted to the CPM as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**27**		Y	When a combustion turbine is combusting fuel (operating), the emission concentration of oxides of nitrogen (NOX), calculated as nitrogen dioxide (NO2), shall not exceed 2.5 parts per million by volume on a dry basis (ppmvd) corrected to 15 percent oxygen, averaged over a one-clock-hour period, except during commissioning, startup, and shutdown periods for that turbine. [Rule 20.3(d)(1)]	The project owner shall provide CEMS emissions data to demonstrate compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**28**		Y	When a combustion turbine is operating, the emission concentration of carbon monoxide (CO) shall not exceed 4.0 ppmvd corrected to 15 percent oxygen, averaged over a one-clock-hour period, except during commissioning, startup, and shutdown periods for that turbine. [Rule 20.3(d)(1)]	The project owner shall provide CEMS emissions data to demonstrate compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**31**		Y	When a combustion turbine is operating, the emission concentration of NOX, calculated as nitrogen dioxide (NO2), shall not exceed 42 ppmvd averaged over each one-clock-hour period and corrected to 15 percent oxygen except for startup and shutdown periods for that turbine, as defined in Rule 69.3. [Rule 69.3]	The project owner shall provide CEMS emissions data to demonstrate compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**33**		Y	When a combustion turbine is operating without any post-combustion air pollution control equipment that controls oxides of nitrogen (NOx) emissions, the emission concentration of NOx calculated as nitrogen dioxide (NO2) from each turbine shall not exceed 22.6 parts per million by volume on a dry basis (ppmvd) averaged over each one-clock-hour period and corrected to 15 percent oxygen, except for periods of startup and shutdown, as defined in Rule 69.3.1. This limit does not apply during any period in which the facility is subject to a variance from the emission limits contained in Rule 69.3.1. [Rule 69.3.1]	The project owner shall provide CEMS emissions data to demonstrate compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**34**		Y	For each rolling four-unit operating hour period, average emission concentration of oxides of nitrogen (NOx) for each turbine calculated as nitrogen dioxide (NO2) in parts per million by volume dry (ppmvd) corrected to 15 percent oxygen or, alternatively, as elected by the project owner, the average NOx emission rate in pounds per megawatt-hour (lb/MWh) shall not exceed an average emission limit calculated in accordance with 40 CFR Section 60.4380(b)(3). The emission concentration and emission rate averages shall be calculated in accordance with 40 CFR Section 60.4380(b)(1). The average emission concentration limit and emission rate limit shall be based on an average of hourly emission limits over the four-unit operating hour period including the operating-hour and three unit operating-hours immediately preceding. For any unit operating hour where multiple emission standards would apply based on load of the turbine, the applicable standard shall be the higher of the two limits. The hourly emission concentration limit and emission rate limit shall be as follows based on the load of the turbine over the four unit operating hour period: Case Emission Limit, ppmvd at 15 percent O2 Emission Limit, lb/MWh i. All four hrs at or above 75% Load 15 0.43 ii. All four hrs below 75% Load 96 4.7 iii. Combination of hrs (a x 15+b x 96)/4 (a x 0.43+b x 4.7)/4 Where: a = the number of unit operating hrs in four hour period with all operation above 75% load and b = 4-a. The averages shall exclude all clock hours occurring before the Initial Emission Source Test but shall include emissions during all other times that the equipment is operating including, but not limited to, emissions during startup and shutdown periods. For each six-calendar-month period, emissions in excess of these limits and monitor downtime shall be identified in accordance with 40 CFR Sections 60.4350 and 60.4380(b)(2), except that Section 60.4350(c) shall not apply for identifying periods in excess of a NOX concentration limit. For the purposes of this condition, unit operating hours shall have the meaning as defined in 40 CFR 60.4420. [40 CFR Part 60 Subpart KKKK]	The project owner shall provide CEMS emissions data to demonstrate compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**38**		N	Visible emissions from the lube oil vents and the exhaust stack of each combustion turbine shall not exceed 20 percent opacity for more than three minutes in any period of 60 consecutive minutes. [Rule 50]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					

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AQ	**39**		Y	Mass emissions from each combustion turbine of oxides of nitrogen (NOx), calculated as NO2; carbon monoxide (CO); and volatile organic compounds (VOC), calculated as methane, shall not exceed the following limits, except during commissioning, startup and shutdown periods for that turbine. A one-clock-hour averaging period for these limits shall apply to CEMS data. [Rule 20.3(d)(2)] Pollutant Emission Limit, lb/hr a. NOx 9.1 b. CO 8.8 c. VOC 2.5	The project owner shall submit to the CPM operating data demonstrating compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**40**		Y	Excluding any minutes that are coincident with a shutdown period, cumulative mass emissions of oxides of nitrogen (NOx), calculated as NO2; carbon monoxide (CO); and volatile organic compounds (VOC), calculated as methane, shall not exceed the following limits during any startup period, except during that turbine's commissioning period. [Rule 20.3(d)(1)]. Pollutant Emission Limit,lb a. NOx 14.7 b. CO 7.4 c. VOC 2.0 [NOx and VOC: Rule 20.3(d)(1); CO: Rule 20.3(d)(2)]	The project owner shall submit to the CPM operating data demonstrating compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**41**		Y	Cumulative mass emissions from each combustion turbine of oxides of nitrogen (NOx), calculated as NO2; carbon monoxide (CO); and volatile organic compounds (VOC), calculated as methane, shall not exceed the following limits during each of that turbine's shutdown periods, except during that turbine's commissioning period. [Rule 20.3(d)(1)] Pollutant Emission Limit,lb a. NO 0.6 b. CO 3.4 c. VOC **2.4**	The project owner shall provide CEMS emissions data to demonstrate compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**42**		Y	Emissions of oxides of nitrogen (NOx), calculated as nitrogen dioxide (NO2), from each combustion turbine shall not exceed 90 pounds per hour measured over each one-clock-hour period. In addition, the emission concentration of NOx, calculated as NO2, from each turbine shall not exceed 100 parts per million by volume on a dry basis (ppmvd) averaged over each one-clock-hour period and corrected to 15 percent oxygen. These emission limits shall apply during all times a turbine is operating, including, but not limited to, emissions during commissioning, startup and shutdown for that turbine. [Rule 20.3(d)(2)]	The project owner shall provide CEMS emissions data to demonstrate compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**43**		Y	The carbon monoxide (CO) emissions from each combustion turbine shall not exceed 248 pounds per hour measured over each one-clock-hour period. In addition, the emission concentration of CO from each turbine shall not exceed 400 parts per million by volume on a dry basis (ppmvd) averaged over each one-clock-hour period and corrected to 15 percent oxygen. This emission limit shall apply during all times that a turbine is operating, including, but not limited to emissions during commissioning, startup and shutdown periods. [Rule 20.3(d)(2)(i)]	The project owner shall provide CEMS emissions data to demonstrate compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**60**		Y	The exhaust stacks for each combustion turbine shall be equipped with source test ports and platforms to allow for the measurement and collection of stack gas samples consistent with all approved test protocols. The ports and platforms shall be constructed in accordance with District Method 3A, Figure 2, and approved by the District. Ninety days prior to construction of the turbine stacks the project owner shall provide to the District for written approval detailed plan drawings of the turbine stacks that show the sampling ports and demonstrate compliance with the requirements of this condition. [Rule 20]	The project owner shall submit to the CPM for review and District for approval a stack test port and platform plan at least 90 days before the construction of the turbine stacks.	N	90	prior to	Stack Installation		10/6/2016	Completed		Submitted to SDAPCD 10/6/2016; SDAPCD Approved 6/20/2017
AQ	**44**		Y	Total emissions from the equipment authorized to be constructed under this permit, except emissions or emission units excluded from the calculation of aggregate potential to emit as specified in Rule 20.1 (d)(1) as it exists on the date the permit to operate for this equipment is approved and except for CO emissions during any rolling 12-calendar-month period in which a turbine commissioning period occurs, shall not exceed the following limits for each rolling 12-calendar-month period, beginning with the 12-calendar-month period beginning with the month in which the earliest initial startup among the equipment authorized to be constructed under this permit occurs: Pollutant Emission Limit, tons per year a. NOx 84.18 b. CO 77.8 c. VOC 24.1 d. PM10 28.4 e. SOx (calculated as SO2) 5.6 The aggregate emissions of each pollutant shall include emissions during all times that the equipment is operating, except for CO emissions during any rolling 12-calendar-month period in which a turbine commissioning period occurs. All calculations performed to show compliance with this limit shall be performed according to a protocol approved in advance by the District. [Rules 20.3(d)(2), 20.3(d)(5), 20.3(d)(8), and 21]	The project owner shall submit to the CPM and the District the facility annual operating and emissions data demonstrating compliance with this condition as part of the fourth quarter's Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**48**		Y	For each calendar month and each rolling 12-calendar-month period, the project owner shall maintain records, as applicable, on a calendar monthly basis, of mass emissions during each calendar month and rolling 12-calendar-month period of NOx (calculated as NO2), CO, VOCs (calculated as methane), PM10, and SOx (calculated as SO2), in tons, from each emission unit located at this stationary source, except for emissions or emission units excluded from the calculation of aggregate potential to emit as specified in Rule 20.1 (d)(1). These records shall be made available for inspection within 15 calendar days after the end of each calendar month. [Rules 20.3(d)(3), 20.3(d)(8) and 21]	The project owner shall provide emissions summary data in compliance with this condition as part of the Quarterly Operation Reports (AQ-SC8). The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	N/A	Quarterly	Quarterly Operation Reports					

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AQ	**49**			For each combustion turbine, the number of annual operating hours in each calendar year shall not exceed 2,700. For the purposes of this condition, the number of operating hours shall be calculated as the total number of unit operating minutes divided by 60 rounded to the nearest hundredth of an hour. [Rules 1200, 20.3(d)(2) and 21]	The project owner shall submit facility annual operating data demonstrating compliance with this condition as part of the fourth quarter's Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**50**		Y	For each combustion turbine, the number of startup periods occurring in each calendar year shall not exceed 400. When determining compliance with this limit, any startup that occurs during the commissioning period shall not be included. [Rules 1200, 20.3(d)(2) and 21]	The project owner shall submit facility annual operating data demonstrating compliance with this condition as part of the fourth quarter's Quarterly Operation Reports (AQ-SC8).	N	N/A	4th Quarter	Quarterly Operation Reports					
AQ	**53**		N	When a combustion turbine is operating, ammonia shall be injected at all times that the associated selective catalytic reduction (SCR) system outlet temperature is 540 degrees Fahrenheit or greater. [Rule 20.3 (d)(1)]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**55**		N	Except during periods when the ammonia injection system is being tuned or one or more ammonia injection systems is in manual control for compliance with applicable permit conditions, the automatic ammonia injection system serving the SCR system shall be in operation in accordance with manufacturer's specifications at all times when ammonia is being injected into the SCR system. Manufacturer specifications shall be maintained on site and made available to District personnel upon request. [Rule 20.3(d)(1)]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**56**	a	N	The concentration of ammonia solution used in the ammonia injection system shall be less than 20 percent ammonia by weight. Records of ammonia solution concentration shall be maintained on site and made available to District personnel upon request. [Rule 14, 21]	The project owner shall maintain on site and provide on request of the CPM or District the ammonia delivery records that demonstrate compliance with this condition.	N	as needed	N/A	Inspections					
AQ	**75**		Y		shall provide notation of when such calculations are used in place of operating CEMS data in the Quarterly Operation Reports (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**66**		N	The higher heating value of the combustion turbine fuel shall be measured by ASTM D1826–94, Standard Test Method for Calorific Value of Gases in Natural Gas Range by Continuous Recording Calorimeter or ASTM D1945–96, Standard Method for Analysis of Natural Gas by Gas Chromatography or an alternative test method approved by the District and EPA. [Rules 69.3, 69.3.1, and 20.3(d)(1) and 40 CFR Part 60 Subpart KKKK, and 40 CFR Part 75]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**76**		Y		shall document all such occurrences in each Quarterly Operation Report (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**68**		N	The project owner shall comply with the applicable continuous emission monitoring requirements of 40 CFR Part 75 and 40 CFR Part 60. [40 CFR Part 75 and 40 CFR Part 60]	The project owner shall maintain a copy of the CEMS protocol required by AQ-70 on site and provide it, other CEMS data, and the CEMS for inspection on request by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**69**		N		The project owner shall make the site available for inspection of records and equipment by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**77**		Y	The CEMS shall be maintained and operated, and reports submitted, in accordance with the requirements of rule 19.2 Sections (d), (e), (f)(1), (f)(2), (f)(3), (f)(4) and (f)(5), and a CEMS protocol approved by the District. [Rule 19.2]	The project owner shall submit to the District the CEMS reports as required in this condition and shall make the site available for inspection of records and equipment by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**78**		Y	Except for changes that are specified in the initial approved CEMS protocol or a subsequent revision to that protocol that is approved in advance, in writing by the District, the District shall be notified in writing at least thirty (30) calendar days prior to any planned changes made in the CEMS or Data Acquisition and Handling System (DAHS), including, but not limited to, the programmable logic controller, software which affects the value of data displayed on the CEMS/DAHS monitors with respect to the parameters measured by their respective sensing devices and any planned changes to the software that controls the ammonia flow to the SCR. Unplanned or emergency changes shall be reported within 96 hours. [Rules 69.3, 69.3.1, and 20.3(d)(1) and 40 CFR Part 60 Subpart KKKK, and 40 CFR Part 75]	The project owner shall submit to the CPM for review and the District for approval any revision to the CEMS/DAHS or ammonia flow control software, as required by this condition, to be approved in advance at least 30 days before any planned changes are made.	N	30	prior to	Revisions to Monitoring Software					
AQ	**78**		Y		shall document all such occurrences in each Quarterly Operation Report (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**80**		Y	Fuel flowmeters shall be installed and maintained to measure the fuel flow rate, corrected for temperature and pressure, to each combustion turbine. Correction factors and constants shall be maintained on site and made available to the District upon request. The fuel flowmeters shall meet the applicable quality assurance requirements of 40 CFR Part 75, Appendix D, and Section 2.1.6. [Rule 69.3, 69.3.1, and 20.3(d)(1) and 40 CFR Park 60 Subpart KKKK, and 40 CFR Part75]	The project owner shall submit to the CPM the natural gas usage data from the fuel flow meters as part of the Quarterly Operation Report (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**84**		Y	Before the end of the commissioning period for each combustion turbine, the project owner shall install post-combustion air pollution control equipment on that turbine to minimize NOx and CO emissions. Once installed, the post-combustion air pollution control equipment shall be maintained in good condition and shall be in full operation at all times when the turbine is combusting fuel and the air pollution control equipment is at or above its minimum operating temperature. [Rule 20.3(d)(1)]	The project owner shall provide the CPM District records demonstrating compliance with this condition as part of the monthly commissioning status report (AQ-85).	N	N/A	Monthly	Monthly Commissioning Reports					
AQ	**73**		N		The project owner shall make the site available for inspection of records and equipment by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**74**		N	The CEMS shall be in operation in accordance with the District approved CEMs protocol at all times when the turbine is in operation. A copy of the District approved CEMS monitoring protocol shall be maintained on site and made available to District personnel upon request. [Rules 69.3, 69.3.1, and 20.3(d)(1) and 40 CFR Part 60 Subpart KKKK, and 40 CFR Part 75]	The project owner shall make the site available for inspection of records and equipment by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**95**		Y	Engine operation for maintenance and testing purposes shall not exceed 35 hours per calendar year unless otherwise required by the National Fire Protection Association (NFPA) Section 25. [Rules 69.4.1, 40 CFR Part 60 Subpart IIII, and 17 CCR §93115]	The project owner shall submit to the CPM the fire pump engine operating data demonstrating compliance with this condition as part of the Quarterly Operation Report (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**76**		N	Any violation of any emission standard as indicated by the CEMS shall be reported to the District's compliance division within 96 hours after such occurrence. [Rule 19.2	The project owner shall notify the District regarding any emission standard violation as required in this condition and	N	96 hours	after	Violation of Emission Standard					

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AQ	**100**	a	Y	A non-resettable engine hour meter shall be installed on this engine, maintained in good working order, and used for recording engine operating hours. If a meter is replaced, the Air Pollution Control District's Compliance Division shall be notified in writing within ten calendar days. The written notification shall include the following information: A. Old meter's hour reading. B. Replacement meter's manufacturer name, model, and serial number if available and current hour reading on replacement meter. C. Copy of receipt of new meter or of installation work order. A copy of the meter replacement notification shall be maintained on site and made available to the Air Pollution Control District upon request. [Rules 69.4.1, 17 CCR §93115, and 40 CFR Part 60 Subpart IIII]	The project owner shall provide notification to the District as required by this condition and	N	10	after	Meter Replacement					
AQ	**105**		Y	The owner or operator of this engine equipment shall maintain a monthly operating log containing, at a minimum, the following: A. Dates and times of engine operation, whether the operation was for compliance with the testing requirements of National Fire Protection Association (NFPA) 25 or emergency use, and the nature of the emergency, if known; B. Hours of operation for all uses other than those specified above and identification of the nature of that use. [Rule 69.4.1, 40 CFR subpart IIII and 17 CCR §93115]	The project owner shall submit to the CPM the fire pump engine operating data demonstrating compliance with this condition as part of the Quarterly Operation Report (AQ-SC8).	N	N/A	Quarterly	Quarterly Operation Reports					
AQ	**78**		N		The project owner shall notify the District regarding any unplanned emergency changes to these software systems within 96 hours and	N	96 hours	after	Emergency Changes to Monitoring Software					
AQ	**83**		N	Operating logs or Data Acquisition and Handling System (DAHS) records shall be maintained to record the beginning and end times and durations of all startup and shutdown periods to the nearest minute, quantity of fuel used in each clock minute, clock hour, calendar month, and 12-calendar-month period in standard cubic feet; hours of operation each day; and hours of operation during each calendar year. For purposes of this condition, the hours of turbine operation is defined as the total minutes the turbine is combusting fuel during the calendar year divided by 60 rounded to the nearest hundredth of an hour. [Rules 69.3, 69.3.1, and 20.3(d)(1) and 40 CFR Part 60 Subpart KKKK, and 40 CFR Part 75]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**85**		N		The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**96**		N	The engine shall only use CARB Diesel Fuel. [Rules 20.3(d)(1), 69.4.1, and 17 CCR §93115]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**97**		N	Visible emissions including crankcase smoke shall comply with Air Pollution Control District Rule 50. [Rule 50]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**98**		N	The equipment described above shall not cause or contribute to public nuisance. [Rule 51]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**99**		N	This engine shall not operate for non-emergency use during the following periods, as applicable: A. Whenever there is any school sponsored activity, if engine is located on school grounds or B. Between 7:30 and 3:30 PM on days when school is in session, if the engine is located within 500 feet of, but not on school grounds. This condition shall not apply to an engine located at or near any school grounds that also serve as the student's place of residence. (ATCM reportable) [17 CCR §93115]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**100**	b	N		shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**101**		N	The owner or operator shall conduct periodic maintenance of this engine and add-on control equipment, if any, as recommended by the engine and control equipment manufacturers or as specified by the engine servicing company's maintenance procedure. The periodic maintenance shall be conducted at least once each calendar year. [Rule 69.4.1and 40 CFR Part 60 Subpart IIII]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ	**103**		N	The owner or operator of this engine shall maintain records of all maintenance conducted on the engine, including a description of the maintenance and date the maintenance was performed. [Rule 69.4.1 and 40 CFR Part 60 Subpart IIII]	The project owner shall make the site available for inspection of records by representatives of the District, ARB, and the Energy Commission.	N	as needed	N/A	Inspections					
AQ-SC	**11**		Y	The project owner shall develop and implement a Leak Detection and Repair (LDAR) plan for the onsite natural gas compressors.	The project owner shall provide the LDAR plan to the CPM for review and approval at least 60 days prior to the start of installation of the natural gas compressors. The LDAR plan shall follow the general practices outlined in the U.S. EPA's "Leak Detection and Repair -- A Best Practices Guide" document. If requested the project owner shall provide records of the implementation of the LDAR plan.	N	60	prior to	Natural Gas Compressors Installation	August 11, 2017	7/28/2017	Completed		Approved 11-3-17
AQ-SC	**6**	a	Y/N	The project owner shall submit to the CPM for review and approval any project air permit modification proposed by the project owner. The project owner shall submit to the CPM any modification to any permit proposed by the District or U.S. EPA, and any revised permit issued by the District or U.S. EPA, for the project.	The project owner shall submit any proposed air permit modification to the CPM within five working days of its submittal either by: 1) the project owner to an agency, or 2) receipt of proposed modifications from an agency.	N	5	prior to	Air Permit Modification	TBD				
AQ-SC	**6**	b	Y		The project owner shall submit all modified air permits to the CPM within 15 days of receipt.	N	15	after	Air Permit Modification	TBD				

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AQ-SC	**3**	a	Y	Construction Fugitive Dust Control: The AQCMM shall submit documentation to the CPM in each Monthly Compliance Report (MCR) that demonstrates compliance with the following mitigation measures for the purposes of preventing all fugitive dust plumes from leaving the project site and linear facility routes. Any deviation from the following mitigation measures shall require prior CPM notification and approval. A. All unpaved roads and disturbed areas in the project and laydown construction/demolition sites shall be watered as frequently as necessary to comply with the dust mitigation objectives of AQ-SC4. The frequency of watering may be reduced or eliminated during periods of precipitation. B. No vehicle shall exceed 10 miles per hour on unpaved areas within the project and laydown construction/demolition sites. C. The construction/demolition site entrances shall be posted with visible speed limit signs. D. All construction/demolition equipment vehicle tires shall be inspected and washed as necessary to be cleaned and free of dirt prior to entering paved roadways. E. Gravel ramps of at least 20 feet in length must be provided at the tire washing/cleaning station. F. All unpaved exits from the construction/demolition site shall be graveled or treated to prevent track-out to public roadways. G. All construction/demolition vehicles shall enter the construction/demolition site through the treated entrance roadways, unless an alternative route has been submitted to and approved by the CPM. H. Construction/demolition areas adjacent to any paved roadway shall be provided with sandbags or other measures as specified in the Storm Water Pollution Prevention Plan (SWPPP) to prevent runoff to roadways. I. All paved roads within the construction/demolition site shall be swept at least twice daily (or less during periods of precipitation) on days when construction/demolition activity occurs to prevent the accumulation of dirt and debris. J. At least the first 500 feet of any public roadway exiting the construction/demolition site shall be swept visually clean, using wet sweepers or air filtered dry vacuum sweepers, at least twice daily (or less during periods of precipitation) on days when	The project owner shall include in the MCR: (1) a summary of all actions taken to maintain compliance with this condition, (2) copies of any complaints filed with the air district in relation to project construction/demolition, and (3) any other documentation deemed necessary by the CPM and AQCMM to verify compliance with this condition. Such information may be provided via electronic format or disk at the project owner's discretion.	N	N/A	Monthly	Monthly Compliance Report					
AQ-SC	**5**	a	Y	Diesel-Fueled Engine Control: The AQCMM shall submit to the CPM, in the Monthly Compliance Report, a construction/demolition mitigation report that demonstrates compliance with the AQCMP mitigation measures for purposes of controlling diesel construction/demolition-related emissions. The following off-road diesel construction/demolition equipment mitigation measures shall be included in the Air Quality Construction Mitigation Plan (AQCMP) required by AQ-SC2, and any deviation from the AQCMP mitigation measures shall require prior CPM notification and approval. a) All diesel-fueled engines used in the construction/demolition of the facility shall have clearly visible tags issued by the on-site AQCMM showing that the engine meets the conditions set forth herein. b) All construction/demolition diesel engines with a rating of 50 hp or higher shall meet, at a minimum, the Tier 4 or 4i California Emission Standards for Off-Road Compression-Ignition Engines, as specified in California Code of Regulations, Title 13, section 2423(b)(1), unless a good faith effort to the satisfaction of the CPM that is certified by the on-site AQCMM demonstrates that such engine is not available for a particular item of equipment. In the event that a Tier 4 or 4i engine is not available for any off-road equipment larger than 50 hp, that equipment shall be equipped with a Tier 3 engine, or an engine that is equipped with retrofit controls to reduce exhaust emissions of nitrogen oxides (NOx) and diesel particulate matter (DPM) to no more than Tier 3 levels unless certified by engine manufacturers or the on-site AQCMM that the use of such devices is not practical for specific engine types. For purposes of this condition, the use of such devices is “not practical” for the following, as well as other, reasons. 1. There is no available retrofit control device that has been verified by either the California Air Resources Board or U.S. Environmental Protection Agency to control the engine in question to Tier 3 equivalent emission levels and the highest level of available control using retrofit or Tier 2 engines is being used for the engine in question; or 2. The construction/demolition equipment is intended to be on site for ten working days or less. 3. The CPM may grant relief from this requirement if the AQCMM can demonstrate a good faith effort to comply with this requirement and that compliance is not practical.	The AQMM shall include in a table in the Monthly Compliance Report the following to demonstrate control of diesel construction/demolition-related emissions: A. A summary of all actions taken to control diesel construction/demolition-related emissions; B. A list of all heavy equipment used on site during that month, including the owner of that equipment and a letter from each owner indicating that equipment had been properly maintained; and C. Any other documentation deemed necessary by the CPM, and the AQCMM to verify compliance with this condition. Such information may be provided via electronic format or disk at the project owner's discretion.	N	N/A	Monthly	Monthly Compliance Report					
AQ-SC	**9**			The gas turbines shall only be operated between the military time hours of 0600 to 2400, except in the event of a California Independent System Operator declared emergency.	The project owner shall submit the Quarterly Operation Reports to the CPM and District, if requested by the District, no later than 30 days following the end of each calendar quarter that demonstrate the operating hours and provide documentation regarding declared emergency events when the gas turbines are operated between the hours of 2400 and 0600, military time.	N	30	following end of quarter	Quarterly Operation Reports					
AQ-SC	**10**		N	[Deleted]	N/A	N								Deleted
AQ-SC	**7**		Y/N	The project owner shall not conduct any on-site remediation of contaminated soils at the project site, other than removal and transport.	The project owner shall provide transportation and disposition records of the contaminated soil removal and off-site remediation completion demonstrating compliance with this condition as part of the applicable Monthly Compliance Report (MCR) until the contaminated soil removal is complete.	N	N/A	Monthly	Monthly Compliance Report					
AQ-SC	**8**		Y	The project owner shall submit to the CPM Quarterly Operation Reports, following the end of each calendar quarter that include operational and emissions information as necessary to demonstrate compliance with the conditions of certification herein. The Quarterly Operation Report will specifically state that the facility meets all applicable conditions of certification or note or highlight all incidences of noncompliance.	The project owner shall submit the Quarterly Operation Reports to the CPM and District, if requested by the District, no later than 30 days following the end of each calendar quarter.	N	30	following end of quarter	Quarterly Operation Reports					

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AQ-SC	**12**		Y	The project owner shall not allow the overlap of specific construction and demolition phase activities. The following activities shall not be conducted concurrently with any of the other listed activities: 1. ASTs 5, 6, and 7 demolition (licensed CECP activity) 2. ASTs 1, 2, and 4 demolition and berm removal (PTR described activities). 3. Amended CECP construction (PTA described activities). 4. EPS demolition (PTA and Encina Power Station Demolition Plan described activities). In addition, the gas turbines initial commissioning activity and the EPS demolition activity shall not be performed concurrently.	The project owner shall identify the start and conclusion of the work phases described above in the Monthly Compliance Reports.	N	N/A	Monthly	Monthly Compliance Report					
AQ-SC	**13**		Y	The project owner shall not implode or fell any concrete or mortar structure, such as the main exhaust stack or the power plant building, during the demolition of the Encina Power Station.	The project owner shall provide updates on the demolition progress and the demolition methods used in the Monthly Compliance Reports.	N	N/A	Monthly	Monthly Compliance Report					
AQ-SC	1		Y	Air Quality Construction/Demolition Mitigation Manager (AQCMM): The project owner shall designate and retain an on-site AQCMM who shall be responsible for directing and documenting compliance with conditions AQ-SC3, AQ-SC4, and AQ-SC5 for the entire project site and linear facility construction/demolition. The on-site AQCMM may delegate responsibilities to one or more AQCMM Delegates. The AQCMM and AQCMM Delegates shall have full access to all areas of construction on the project site and linear facilities and shall have the authority to stop any or all construction/demolition activities as warranted by applicable construction/demolition mitigation conditions. The AQCMM and AQCMM Delegates may have other responsibilities in addition to those described in this condition. The AQCMM shall not be terminated without written consent of the Compliance Project Manager (CPM).	At least 60 days prior to the start of ground disturbance, the project owner shall submit to the CPM for approval, the name, resume, qualifications, and contact information for the on-site AQCMM and all AQCMM Delegates. The AQCMM and all Delegates must be approved by the CPM before the start of ground disturbance.	Y	60	prior to	ground disturbance		7/29/2014	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15. Approved alternate AQ CMM on July 18, 2016.
AQ-SC	2		Y	Air Quality Construction/Demolition Mitigation Plan (AQCMP): The project owner shall provide an AQCMP, for approval, which details the steps that will be taken and the reporting requirements necessary to ensure compliance with conditions AQ-SC3, AQ-SC4, and AQ-SC5.	At least 60 days prior to the start of any ground disturbance, the project owner shall submit the AQCMP to the CPM for approval. The CPM will notify the project owner of any necessary modifications to the plan within 30 days from the date of receipt. The AQCMP must be approved by the CPM before the start of ground disturbance.	Y	60	prior to	ground disturbance		9/5/2014, 7/15/15, 1/6/16	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15.
AQ-SC	**4**	a	N	Dust Plume Response Requirement: The AQCMM or Delegate shall monitor all construction/demolition activities for visible dust plumes. Observations of visible dust plumes that have the potential to be transported: (1) off the project site,-(2) 200 feet beyond the centerline of the construction of linear facilities, (3) within 100 feet upwind of any regularly occupied structures not owned by the project owner, or (4) within 50 feet upwind of the I-5 freeway indicate that existing mitigation measures are not resulting in effective mitigation. The AQCMM or Delegate shall implement the following procedures for additional mitigation measures in the event that such visible dust plumes, other than those occurring upwind of the I-5 Freeway, are observed: Step 1: The AQCMM or Delegate shall direct more intensive application of the existing mitigation methods within 15 minutes of making such a determination. Step 2: The AQCMM or Delegate shall direct implementation of additional methods of dust suppression if Step 1 specified above fails to result in adequate mitigation within 30 minutes of the original determination. Step 3: The AQCMM or Delegate shall direct a temporary shutdown of the activity causing the emissions if Step 2 specified above fails to result in effective mitigation within one hour of the original determination. The activity shall not restart until the AQCMM or Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes will not result upon restarting the shut-down source. The owner/operator may appeal to the CPM any directive from the AQCMM or Delegate to shut down an activity, provided that the shutdown shall go into effect within one hour of the original determination, unless overruled by the CPM before that time.	The AQCMP shall include a section detailing how the additional mitigation measures will be accomplished within the time limits or directions specified.	Y	N/A	N/A	ground disturbance				1	
AQ-SC	**3**	b		K. All soil storage piles and disturbed areas that remain inactive for longer than 10 days shall be covered or shall be treated with appropriate dust suppressant compounds. L. All vehicles that are used to transport solid bulk material on public roadways and that have the potential to cause visible emissions shall be provided with a cover or the materials shall be sufficiently wetted and loaded onto the trucks in a manner to provide at least two feet of freeboard. M. Wind erosion control techniques (such as windbreaks, water, chemical dust suppressants, and/or vegetation) shall be used on all construction/demolition areas that may be disturbed. Any windbreaks installed to comply with this condition shall remain in place until the soil is stabilized or permanently covered with vegetation. N. Disturbed areas will be re-vegetated as soon as practical. O. Haul trucks used during the Encina Power Station demolition shall be limited to traveling on paved or graveled surfaces at all times within the boundary of the Encina Power Station property. The fugitive dust requirements listed in this condition may be replaced with as stringent or more stringent methods as required by SDAPCD Rule 55.										

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AQ-SC	4	b		The AQCMM or Delegate shall implement the following procedures for additional mitigation measures in the event that such visible dust plumes occurring within 50 feet upwind of the I-5 Freeway are observed: Step 1: The AQCMM or Delegate shall immediately cease the activities causing the visible dust plumes if any obscuration of visibility is occurring to drivers on the I-5 freeway. The AQCMM or Delegate shall direct more intensive application of the existing mitigation methods immediately if the visible plumes are seen within 50 feet of the I-5 freeway but are not causing obscuration of visibility to drivers. Step 2: The AQCMM or Delegate shall direct implementation of additional methods of dust suppression and monitor the start-up and/or continuation of the dust causing activities to ensure that the additional mitigation is effective. Step 3: The AQCMM or Delegate shall direct a temporary shutdown of the activity causing the emissions if Step 2 specified above fails to result in effective mitigation. The activity shall not restart until the AQCMM or Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes that could impact visibility on the I-5 Freeway will not occur upon restarting the shut-down fugitive dust source.									
AQ-SC	5	b		c) The use of a retrofit control device may be terminated immediately, provided that the CPM is informed within ten working days of the termination and that a replacement for the equipment item in question meeting the controls required in item "b" occurs within ten days of termination of the use, if the equipment would be needed to continue working at this site for more than 15 days after the use of the retrofit control device is terminated, if one of the following conditions exists: 1. The use of the retrofit control device is excessively reducing the normal availability of the construction/demolition equipment due to increased down time for maintenance, and/or reduced power output due to an excessive increase in back pressure. 2. The retrofit control device is causing or is reasonably expected to cause engine damage. 3. The retrofit control device is causing or is reasonably expected to cause a substantial risk to workers or the public. 4. Any other seriously detrimental cause which has the approval of the CPM prior to implementation of the termination. d) All heavy earth-moving equipment and heavy duty construction/demolition-related trucks with engines meeting the requirements of (b) above shall be properly maintained and the engines tuned to the engine manufacturer's specifications. e) All diesel heavy construction/demolition equipment shall not idle for more than five minutes. Vehicles that need to idle as part of their normal operation (such as concrete trucks) are exempted from this requirement. f) Construction/demolition equipment will employ electric motors when feasible.									
BIO	6	g	Y		Within 30 days after completion of project construction, the project owner shall provide to the CPM, for review and approval: a written construction closure report identifying which items of the BRMIMP have been completed; a summary of all modifications to mitigation measures made during the project's site mobilization, ground disturbance, grading, and construction phases; and which mitigation and monitoring items are still outstanding.	N	30	after	Completion of Project Construction	September 21, 2018			1	
BIO	7	b	Y		Within 30 days after completion of project construction, the project owner shall provide to the CPM, for review and approval, a written construction termination report identifying how measures have been completed.	N	30	after	Completion of Project Construction	September 21, 2018				
BIO	8	b	Y	A. If this is not feasible, a survey shall be conducted for nesting birds within the project area. B. Should an active nest be discovered, the Designated Biologist or biological monitor shall establish an appropriate buffer zone (in which construction activities are not allowed) to avoid disturbance in the vicinity of the nest. i. Construction activities shall not commence until the Designated Biologist or biological monitor has determined that the nestlings have fledged or that construction activities will not affect adults or newly fledged young; OR ii. The Designated Biologist or biological monitor shall develop a monitoring plan that permits the activity to continue in the vicinity of the nest while monitoring nesting activities to ensure that nesting birds are not disturbed. 7. report all inadvertent deaths of sensitive species to the biological monitor, who will notify CDFW or USFWS, as appropriate; and 8. minimize use of rodenticides and herbicides in the project area.	Within 30 days after completion of project construction, the project owner shall provide to the CPM, for review and approval, a written construction termination report identifying how biological resource measures have been completed.	N	30	after	Completion of Project Construction	September 21, 2018				
BIO	2	b		5. inspect active construction areas where animals may have become trapped prior to construction commencing each day. At the end of the day, inspect for the installation of structures that prevent entrapment or allow escape during periods of construction inactivity. Periodically inspect areas with high vehicle activity (i.e., parking lots) for animals in harm's way; 6. notify the project owner and the CPM of any non-compliance with any **Biological Resources** Condition of Certification; 7. respond directly to inquiries of the CPM regarding biological resource issues; 8. maintain written records of the tasks specified above and those included in the BRMIMP. Summaries of these records shall be submitted in the monthly compliance report and the annual report; and 9. train the biological monitors as appropriate, and ensure their familiarity with the BRMIMP, Worker Environmental Awareness Program (WEAP) training, and all permits.	During project operation, the Designated Biologist shall submit record summaries in the annual compliance report unless his/her duties are ceased as approved by the CPM.	N	N/A	Annual	Annual Compliance Report	February 27, 2019				

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BIO	**5**	d	N		The signed training acknowledgement forms from construction shall be kept on file by the project owner for a period of at least 6 months after the start of commercial operation. During project operation, signed statements for active project operational personnel shall be kept on file for 6 months following the termination of an individual's employment.	N	180	after	Commercial Operation	April 24, 2019				
BIO	**1**	b	Y		If a Designated Biologist needs to be replaced, the specified information of the proposed replacement must be submitted to the CPM at least ten working days prior to the termination or release of the preceding designated biologist. In an emergency, the project owner shall immediately notify the CPM to discuss the qualifications and approval of a short-term replacement while a permanent Designated Biologist is proposed to the CPM for consideration.	N	10	prior to	Termination of DB, CRS, PRS					
BIO	**2**	a	Y	The project owner shall ensure that the Designated Biologist performs the following during any site (or related facilities) mobilization, ground disturbance, grading, construction, operation, and closure activities. The Designated Biologist may be assisted by approved biological monitor(s), but remains the contact for the project owner and CPM. The designated biologist shall: 1. advise the project owner's construction and operation managers on the implementation of the **Biological Resources** Conditions of Certification; 2. consult on the preparation of the Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP), to be submitted by the project owner; 3. be available to supervise, conduct, and coordinate mitigation, monitoring, and other biological resource compliance efforts, particularly in areas requiring avoidance or containing sensitive biological resources, such as wetlands and special-status species or their habitat; 4. clearly mark sensitive biological resource areas and inspect these areas at appropriate intervals for compliance with regulatory terms and conditions;	The Designated Biologist shall submit in the monthly compliance report to the CPM copies of all written reports and summaries that document biological resources activities. If actions may affect biological resources during operation, a Designated Biologist shall be available for monitoring and reporting.	N	N/A	Monthly	Monthly Compliance Report				1	
BIO	**3**	b	Y		If additional biological monitors are needed during construction, the specified information shall be submitted to the CPM for approval 10 days prior to their first day of monitoring activities.	N	10	prior to	Additional bio, cultural, paleo staff	as needed				CPM approved 3/21/17
BIO	**4**	a	Y	The project owner's construction and operation manager shall act on the advice of the Designated Biologist and biological monitor(s) to ensure conformance with the biological resources conditions of certification. If required by the Designated Biologist and biological monitor(s), the project owner's construction and operation manager shall halt all site mobilization, ground disturbance, grading, construction, and operation activities in areas specified by the Designated Biologist. The Designated Biologist shall: 1. require a halt to all activities in any area when determined that there would be an unauthorized adverse impact to biological resources if the activities continued; 2. inform the project owner and the construction and operation manager when to resume activities; and 3. notify the CPM if there is a halt of any activities and advise the CPM of any corrective actions that have been taken, or will be instituted, as a result of the work stoppage. If the Designated Biologist is unavailable for direct consultation, the lead biological monitor shall act on behalf of the Designated Biologist.	The project owner shall ensure that the Designated Biologist or biological monitor notifies the CPM immediately (and no later than the following morning of the incident, or Monday morning in the case of a weekend) of any non-compliance or a halt of any site mobilization, ground disturbance, grading, construction, and operation activities. The project owner shall notify the CPM of the circumstances and actions being taken to resolve the problem.	N	24 Hours	Immediately	Construction Halted					
BIO	**4**	b	Y		Whenever corrective action is taken by the project owner, a determination of success or failure will be made by the CPM within five working days after receipt of notice that corrective action is completed, or the project owner will be notified by the CPM that coordination with other agencies will require additional time before a determination can be made.	N	5	after	Corrective Action					
BIO	**5**	d	N		The signed training acknowledgement forms from construction shall be kept on file by the project owner for a period of at least six months after the start of commercial operation.	N	>180	N/A	Start of Commercial Operation					
BIO	**5**	e	N		During project operation, signed statements for active project operational personnel shall be kept on file for six months following the termination of an individual's employment.	N	>180	N/A	Termination of Individual's Employment					
BIO	**5**	c	Y	The WEAP must: 1. be developed by or in consultation with the Designated Biologist and consist of an on-site or training center presentation in which supporting written material and electronic media are made available to all participants; 2. discuss the locations and types of sensitive biological resources on the project site and adjacent areas; 3. present the reasons for protecting these resources; 4. present the meaning of various temporary and permanent habitat protection measures; 5. identify whom to contact if there are further comments and questions about the material discussed in the program; and 6. include a training acknowledgment form to be signed by each worker indicating that he/she received training and shall abide by the guidelines. The specific program may be administered by a competent individual(s) acceptable to the Designated Biologist.	The project owner shall provide in the monthly compliance report the number of persons who have completed the training in the prior month and a running total of all persons who have completed the training to date.	N	N/A	Monthly	Monthly Compliance Report					

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BIO	**6**	b	Y		If there are any permits that have not yet been received when the BRMIMP is first submitted, these permits shall be submitted to the CPM, the CDFW, and USFWS within five days of their receipt, and	N	5	after	Receipt of permits for BRMIMP					
BIO	**6**	c	Y		the BRMIMP shall be revised or supplemented to reflect the permit condition within ten days of their receipt by the project owner.	N	10	after	Receipt of permits for BRMIMP					
BIO	**6**	e	Y		The project owner shall notify the CPM no less than five working days before implementing any modifications to the approved BRMIMP to obtain CPM approval. Any changes to the approved BRMIMP must also be approved by the CPM in consultation with CDFW, the USFWS, and appropriate agencies to ensure no conflicts exist.	N	5	prior to	Modifications to BRMIMP					
BIO	**6**	f	Y	9. all locations on a map, at an approved scale, of sensitive biological resource areas subject to disturbance and areas requiring temporary protection and avoidance during construction; 10. aerial photographs, at an approved scale, of all areas to be disturbed during project construction activities — one set prior to any site (and related facilities) mobilization disturbance and one set subsequent to completion of project construction. Include planned timing of aerial photography and a description of why times were chosen; 11. duration for each type of monitoring and a description of monitoring methodologies and frequency; 12. performance standards to be used to help decide if/when proposed mitigation is or is not successful; 13. all performance standards and remedial measures to be implemented if performance standards are not met; 14. a preliminary discussion of biological resources related facility closure measures; 15. restoration and revegetation plan; and 16. a process for proposing plan modifications to the CPM and appropriate agencies for review and approval.	Implementation of BRMIMP measures will be reported in the monthly compliance reports by the Designated Biologist (i.e., survey results, construction activities that were monitored, species observed).	N	N/A	Monthly	Monthly Compliance Report					
BIO	**7**	a	Y	Any time the project owner modifies or finalizes the project design, all feasible measures shall be incorporated that avoid or minimize impacts to the local biological resources. The project owner shall: 1. design, install, and maintain transmission line poles, access roads, pulling sites, and storage and parking areas to avoid identified sensitive resources; 2. design, install, and maintain transmission lines and all electrical components in accordance with the Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006 to reduce the likelihood of electrocutions of large birds; 3. install bird flight diverters on the overhead ground wires of proposed transmission lines (230- and 138-kV) to reduce the likelihood of bird collision with power lines; if overhead ground wires are not installed, bird flight diverters shall be placed on the conductors. 4. eliminate from landscaping plans any List A California exotic pest plants of concern as defined by the California Exotic Pest Plant Council; 5. prescribe a road sealant that is non-toxic to wildlife and plants; and 6. design, install, and maintain facility lighting to prevent side casting of light toward wildlife habitat (i.e., Agua Hedionda Lagoon); obstruction lighting shall be white flashing lights unless specifically prohibited by the FAA.	All mitigation measures and their implementation methods shall be included in the BRMIMP. Implementation of the measures shall be reported in the monthly compliance reports by the Designated Biologist.	N	N/A	Monthly	Monthly Compliance Report					
BIO	**8**	a	Y	The project owner shall implement the following measures to manage its construction site (and related facilities) in a manner to avoid or minimize impacts to local biological resources: 1. install temporary fencing and provide wildlife escape ramps for construction areas that contain steep-walled holes or trenches if outside an approved, permanent exclusionary fence. The temporary fence shall be hardware cloth or similar material that is approved by USFWS and CDFW; 2. ensure that all food-related trash is disposed of in closed containers and removed at least once a week; 3. prohibit feeding of wildlife by staff and subcontractors; 4. prohibit non-security related firearms or weapons on-site; 5. prohibit pets on site; 6. avoid work between March 1 and August 15 to avoid impacts to birds protected under the Migratory Bird Treaty Act.	All mitigation measures and their implementation methods shall be included in the BRMIMP. Implementation of the measures shall be reported in the monthly compliance reports by the Designated Biologist.	N	N/A	Monthly	Monthly Compliance Report					
BIO	1	a	Y	The project owner shall assign a Designated Biologist to the project. The project owner shall submit the resume of the proposed Designated Biologist, with at least three references and contact information, to the compliance project manager (CPM) for approval. The Designated Biologist must meet at least the following minimum qualifications: 1. bachelor's degree in biological sciences, zoology, botany, ecology, or a closely related field; and 2. three years of experience in field biology or current certification from a nationally recognized biological society, such as The Ecological Society of America or The Wildlife Society; and 3. at least one year of field experience with biological resources found in or near the project area. In lieu of the above requirements, the resume shall demonstrate to the satisfaction of the CPM, that the proposed or alternate Designated Biologist has the appropriate training and background to implement effectively the project owner-proposed mitigation measures and Conditions of Certification.	The project owner shall submit the specified information at least 90 days prior to the start of any site (or related facilities) mobilization. No site or related facility activities shall commence until an approved Designated Biologist is available to be on-site.	Y	90	prior to	Site Mobilization		7/29/14	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15.

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BIO	3	a	Y	The project owner's CPM-approved Designated Biologist shall submit the resume, at least three references, and contact information of the proposed biological monitor(s) to the CPM for approval. The resume shall demonstrate, to the satisfaction of the CPM, the appropriate education and experience to accomplish the assigned biological resource tasks. Biological monitor(s) training by the Designated Biologist shall include familiarity with the Conditions of Certification, BRMIMP, WEAP, and all permits.	The project owner shall submit the specified information to the CPM for approval at least 30 days prior to the start of any site (or related facilities) mobilization. The Designated Biologist shall submit a written statement to the CPM confirming that the individual biological monitor(s) has been trained, including the date when training was completed.	Y	30	prior to	Site Mobilization		7/29/2014	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15.
BIO	5	a	Y	The project owner shall develop and implement a CPM-approved Worker Environmental Awareness Program (WEAP) in which each of its employees, as well as employees of contractors and subcontractors who work on the project site or any related facilities during site mobilization, ground disturbance, grading, construction, operation, and closure, is informed about sensitive biological resources associated with the project.	At least 60 days prior to the start of any project-related ground disturbing activities, the project owner shall provide to the CPM two copies of the proposed WEAP and all supporting written materials and electronic media prepared or reviewed by the Designated Biologist and a resume of the person(s) administering the program.	Y	60	prior to	Ground Disturbance		8/25/2014	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15.
BIO	5	b	Y		At least 10 days prior to site (and related facilities) mobilization, the project owner shall submit two copies of the CPM-approved materials.	Y	10	prior to	Site Mobilization		8/25/2014	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15.
BIO	6	a	Y	The project owner shall submit two copies of the proposed BRMIMP to the CPM (for review and approval) and to CDFW and USFWS (for review and comment), and shall implement the measures identified in the approved BRMIMP. The BRMIMP shall be prepared in consultation with the Designated Biologist and shall identify: 1. all biological resource mitigation, monitoring, and compliance measures proposed and agreed to by the project owner; 2. all project owner-proposed mitigation measures presented in the Application for Certification; 3. all Biological Resource Conditions of Certification in the Final Commission Decision to avoid or mitigate impacts; 4. all biological resource mitigation, monitoring, and compliance measures required in other state agency terms and conditions, such as those provided in the Regional Water Quality Control Board permits; 5. all biological resource mitigation, monitoring, and compliance measures required in local agency permits, such as site grading and landscaping requirements; 6. all sensitive biological resources to be impacted, avoided, or mitigated by project construction, operation, and closure; 7. all required mitigation measures for each sensitive biological resource; 8. a detailed description of measures that shall be taken to avoid or mitigate temporary disturbances from construction activities;	The project owner shall provide the specified document at least 60 days prior to the start of any project-related ground disturbing activities. The CPM will determine the BRMIMP's acceptability within 45 days of receipt.	Y	60	prior to	Ground Disturbance		8/15/2014	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15.
BIO	**6**	d	Y		Ten days prior to site (and related facilities) mobilization, the revised BRMIMP shall be resubmitted to the CPM.	Y	10	prior to	Site Mobilization		7/16/2015		1	Approved by Start of Tank Demolition Letter from CPM, received on 12-9-14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remedation letter 8-31-15.
CIVIL	1		Y	The project owner shall submit to the CBO for review and approval the following: 1. Design of the proposed drainage structures and the grading plan; 2. An erosion and sedimentation control plan; 3. Related calculations and specifications, signed and stamped by the responsible civil engineer; and 4. Soils, geotechnical, or foundation investigations reports required by the 2013 CBC, Chapter 18, § 1803.6 Reporting, and § 1803,Geotechnical Investigation.	At least 15 days (or within a project owner- and CBO-approved alternative time frame) prior to the start of site grading the project owner shall submit the documents described above to the CBO for design review and approval. In the next monthly compliance report following the CBO's approval, the project owner shall submit a written statement certifying that the documents have been approved by the CBO.	Y	15	prior to	Site Grading	11/15	2/2/2016	Completed	1	Approved by CEC Start of Construction letter 6-3-16. CBO approved all plans 10/26/16.
CIVIL	**4**		Y	After completion of finished grading and erosion and sedimentation control and drainage work, the project owner shall obtain the CBO's approval of the final grading plans (including final changes) for the erosion and sedimentation control work. The civil engineer shall state that the work within his/her area of responsibility was done in accordance with the final approved plans (2013 CBC, Chapter 17, §1703.2, Written Approval).	Within 30 days (or project owner- and CBO-approved alternative time frame) of the completion of the erosion and sediment control mitigation and drainage work, the project owner shall submit to the CBO, for review and approval, the final grading plans (including final changes) and the responsible civil engineer's signed statement that the installation of the facilities and all erosion control measures were completed in accordance with the final approved combined grading plans, and that the facilities are adequate for their intended purposes, along with a copy of the transmittal letter to the CPM. The project owner shall submit a copy of the CBO's approval to the CPM in the next monthly compliance report.	N	30	after	Completion of Erosion/Sediment Control Mitigation & Drainage Work	September 21, 2018				
CIVIL	**2**		N	The resident engineer shall, if appropriate, stop all earthwork and construction in the affected areas when the responsible soils engineer, geotechnical engineer, or the civil engineer experienced and knowledgeable in the practice of soils engineering identifies unforeseen adverse soil or geologic conditions. The project owner shall submit modified plans, specifications, and calculations to the CBO based on these new conditions. The project owner shall obtain approval from the CBO before resuming earthwork and construction in the affected area (2013 CBC, Appendix Chapter 1, § 115, Stop Work Orders).	The project owner shall notify the CPM within 24 hours when earthwork and construction is stopped as a result of unforeseen adverse geologic/soil conditions. Within 24 hours of the CBO's approval to resume earthwork and construction in the affected areas, the project owner shall provide to the CPM a copy of the CBO's approval.	N	24 hours	After	Construction Halted					

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CIVIL	**3**		N	The project owner shall perform inspections in accordance with the 2013 CBC, Appendix Chapter 1, § 110, Inspections; and Chapter 17, § 1704, Special Inspections. All plant site-grading operations, for which a grading permit is required, shall be subject to inspection by the CBO. If, in the course of inspection, it is discovered that the work is not being performed in accordance with the approved plans, the discrepancies shall be reported immediately to the resident engineer, the CBO, and the CPM (2013 CBC, Chapter 17, § 1704.2.4, Report Requirements). The project owner shall prepare a written report, with copies to the CBO and the CPM, detailing all discrepancies, non-compliance items, and the proposed corrective action.	Within five days of the discovery of any discrepancies, the resident engineer shall transmit to the CBO and the CPM a non-conformance report (NCR), and the proposed corrective action for review and approval. Within five days of resolution of the NCR, the project owner shall submit the details of the corrective action to the CBO and the CPM. A list of NCRs, for the reporting month, shall also be included in the following monthly compliance report.	N	as needed	Within 5 days	Any grading discrepancies					
COMPLIANCE	**10**		Y	**Amendments, Staff-Approved Project Modifications, Ownership Changes, and Verification Changes.** The project owner shall petition the Energy Commission, pursuant to Title 20, California Code of Regulations, section 1769, to modify the design, operation, or performance requirements of the project or linear facilities, or to transfer ownership or operational control of the facility. The CPM will determine whether staff approval will be sufficient, or whether Commission approval will be necessary. It is the project owner's responsibility to contact the CPM to determine if a proposed project change triggers the requirements of section 1769. Section 1769 details the required contents for a Petition to Amend an Energy Commission Decision. The only change that can be requested by means of a letter to the CPM is a request to change the verification method of a condition of certification. Implementation of a project modification without first securing Energy Commission, or Energy Commission staff, approval may result in an enforcement action, including civil penalties, in accordance with section 25534 of the Public Resources Code. If the Energy Commission's rules regarding amendments are revised, the rules in effect at the time the change is requested shall apply.		Y	N/A	Prior to	Project Change on Design	October 17, 2014	11/12/2014	Completed	1	Approved by Start of Tank Demolition Letter from CPM, received on 12-9-14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remedation letter 8-31-15.
COMPLIANCE	**5**		Y	**Compliance Matrix**. The project owner shall submit a compliance matrix to the CPM with each MCR and ACR. The compliance matrix provides the CPM with the status of all conditions of certification in a spreadsheet format. The compliance matrix shall identify: 1. the technical area (e.g., biological resources, facility design, etc.); 2. the condition number; 3. a brief description of the verification action or submittal required by the condition; 4. the date the submittal is required (e.g., sixty (60) days prior to construction, after final inspection, etc.); 5. the expected or actual submittal date; 6. the date a submittal or action was approved by the CBO, CPM, or delegate agency, if applicable; 7. the compliance status of each condition (e.g., "not started," "in progress," or "completed" (include the date); and 8. if the condition was amended, the updated language and the date the amendment was proposed or approved. The CPM can provide a template for the compliance matrix upon request.	A compliance matrix shall be submitted by the project owner to the CPM along with each monthly and annual compliance report.	Y	Monthly	Monthly	Monthly Compliance Report	10/15			1	
COMPLIANCE	11	a	Y	**Reporting of Complaints, Notices, and Citations**. Prior to the start of construction or decommissioning, the project owner shall send a letter to property owners within one mile of the project, notifying them of a telephone number to contact project representatives with questions, complaints, or concerns. If the telephone is not staffed 24 hours per day, it shall include automatic answering with a date and time stamp recording. The project owner shall respond to all complaints within 24 hours or the next business day. The project owner shall post the telephone number at the project site and make it easily visible to passersby during construction, operation, and closure. The project owner shall provide the contact information to the CPM who will post it on the Energy Commission's web page at http://www.energy.ca.gov/sitingcases/carlsbad/ The project owner shall report any disruption to the contact system or telephone number change to the CPM promptly, to allow the CPM to update the Energy Commission's facility webpage accordingly. In addition to including all complaints, notices, and citations with the MCRs and ACRs, within ten days of receipt, the project owner shall report, and provide copies to the CPM, of all complaints, including noise and lighting complaints, notices of violation, notices of fines, official warnings, and citations. Complaints shall be logged and numbered. Noise complaints shall be recorded on the form provided in the Noise and Vibration conditions of certification. All other complaints shall be recorded on the complaint form (Attachment A) at the end of this Compliance Plan.	Prior to the start of construction or decommissioning, the project owner shall send a letter to property owners within one mile of the project, notifying them of a telephone number to contact project representatives with questions, complaints, or concerns.	Y		prior to	Construction	11/15	11/14/14; 8/17/15; 1/7/16	Completed	1	Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15. Approved for start of berm demolition on 1/15/16. Approved by CEC Start of Construction letter 6/3/16.

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COMPLIANCE	**7**	a	Y	**Annual Compliance Reports.** After construction is complete, the project owner must submit searchable electronic ACRs instead of MCRs. ACRs are due for each year of commercial operation and may be required for a specified period after decommissioning to monitor closure compliance, as specified by the CPM. The searchable electronic copies may be filed on an electronic storage medium or by e-mail, subject to CPM approval. Each ACR must include the AFC number, identify the reporting period, and contain the following: 1. an updated compliance matrix showing the status of all conditions of certification (fully satisfied conditions do not need to be included in the matrix after they have been reported as completed); 2. a summary of the current project operating status and an explanation of any significant changes to facility operations during the year; 3. documents required by specific conditions to be submitted along with the ACR; each of these items shall be identified in the transmittal letter with the condition it satisfies and submitted as an attachment to the ACR; 4. a cumulative list of all post-certification changes approved by the Energy Commission or the CPM; 5. an explanation for any submittal deadlines that were missed, accompanied by an estimate of when the information will be provided; 6. a list of filings submitted to, and permits issued by, other governmental agencies during the year; 7. a projection of project compliance activities scheduled during the next year; 8. a list of the year's additions to the on-site compliance file; 9. an evaluation of the Site Contingency Plan, including amendments and plan updates; and 10. a list of complaints, notices of violation, official warnings, and citations received during the year, a description of how the issues were resolved, and the status of any unresolved matters.	ACRs are due for each year of commercial operation and may be required for a specified period after decommissioning to monitor closure compliance, as specified by the CPM.	N	N/A	Annual	Annual Compliance Report	February 28, 2018				
COMPLIANCE	**12**		Y	**Emergency Response Site Contingency Plan**. No less than 60 days prior to the start of commercial operation (or other date agreed to by the CPM), the project owner shall submit for CPM review and approval, an Emergency Response Site Contingency Plan (Contingency Plan). The Contingency Plan shall evidence a facility's coordinated emergency response and recovery preparedness for a series of reasonably foreseeable emergency events. The CPM may require the updating of the Contingency Plan over the life of the facility. Contingency Plan elements include, but are not limited to: 1. a site-specific list and direct contact information for persons, agencies, and responders to be notified for an unanticipated event; 2. a detailed and labeled facility map, including all fences and gates, the windsock location (if applicable), the on- and off-site assembly areas, and the main roads and highways near the site; 3. a detailed and labeled map of population centers, sensitive receptors, and the nearest emergency response facilities; 4. a description of the on-site, first response and backup emergency alert and communication systems, site-specific emergency response protocols, and procedures for maintaining the facility's contingency response capabilities, including a detailed map of interior and exterior evacuation routes, and the planned location(s) of all permanent safety equipment; 5. an organizational chart including the name, contact information, and first aid/emergency response certification(s) and renewal date(s) for all personnel regularly on-site; 6. a brief description of reasonably foreseeable, site-specific incidents and accident sequences (on- and off-site), including response procedures and protocols and site security measures to maintain twenty-four-hour site security; 7. procedures for maintaining contingency response capabilities; and 8. the procedures and implementation sequence for the safe and secure shutdown of all non-critical equipment and removal of hazardous materials and waste (see also specific conditions of certification for the technical areas of Public Health, Waste Management, Hazardous Materials Management, and Worker Safety).	No less than 60 days prior to the start of commercial operation (or other date agreed to by the CPM), the project owner shall submit for CPM review and approval, an Emergency Response Site Contingency Plan (Contingency Plan).	N	60	prior to	Commercial Operation	August 13, 2018	10/26/2018	Completed		
COMPLIANCE	**15**	a	Y	**Facility Closure Planning.** To ensure that a facility's eventual permanent closure and long-term maintenance do not pose a threat to public health and safety and/or to environmental quality, the project owner shall coordinate with the Energy Commission to plan and prepare for eventual permanent closure. A. Provisional Closure Plan and Estimate of Permanent Closure Costs To assure satisfactory long-term site maintenance and adequate closure for "the whole of a project," the project owner shall submit a Provisional Closure Plan and Cost Estimate for CPM review and approval within 60 days after the start of commercial operation. The Provisional Closure Plan and Cost Estimate shall consider applicable final closure plan requirements, and reflect the use of an independent third party to carry out the permanent closure. The Provisional Closure Plan and Cost Estimate shall provide for a phased closure process and include but not be limited to: 1. comprehensive scope of work and itemized budget; 2. closure plan development costs; 3. dismantling and demolition; 4. recycling and site clean-up; 5. mitigation and monitoring direct, indirect, and cumulative impacts; 6. site remediation and/or restoration; 7. interim and long term operation monitoring and maintenance, including long-term equipment replacement costs; and 8. contingencies. The project owner shall include an updated Provisional Closure Plan and Cost Estimate in every fifth-year ACR for CPM review and approval. Each updated Provisional Closure Plan and Cost Estimate shall reflect the most current regulatory standards, best management practices, and applicable LORS.	Submit a Provisional Closure Plan and Cost Estimate for CPM review and approval within 60 days after the start of commercial operation.	N	60	after	Commercial Operation	December 11, 2018				

Technical Area	COC Number	Subtask	Deliverable Req.	Description	Verification/Action/Submittal Required	Required Prior to Start of Construction?	Action Days	Submittal Timing	Submittal Trigger Event	Expected Submittal Date	Actual Submittal Date	Compliance Status	Priority (Tier 1, 2, or 3)	Comments
COMPLIANCE	**11**	d	Y		In addition to including all complaints, notices, and citations with the MCRs and ACRs, within ten days of receipt, the project owner shall report, and provide copies to the CPM, of all complaints, including noise and lighting complaints, notices of violation, notices of fines, official warnings, and citations.	N	N/A	Annual	Annual Compliance Report	February 27, 2019				
COMPLIANCE	4		Y	**Pre-Construction Matrix and Tasks Prior to Start of Construction**. Prior to start of construction, the project owner shall submit to the CPM a compliance matrix including only those conditions that must be fulfilled before the start of construction. The matrix shall be included with the project owner's first compliance submittal or prior to the first pre-construction meeting, whichever comes first, and shall be submitted in a format similar to the description below. Site mobilization and construction activities shall not start until all of the following occur: the project owner has submitted the preconstruction matrix and all submittals required by compliance verifications pertaining to all pre-construction conditions of certification, and the CPM has issued an authorization-to-construct letter to the project owner. The deadlines for submitting various compliance verifications to the CPM allow sufficient staff time to review and comment on, and if necessary, allow the project owner to revise the submittal in a timely manner. These procedures help ensure that project construction proceeds according to schedule. Failure to submit required compliance documents by the specified deadlines may result in delayed authorizations to commence various stages of the project. If the project owner anticipates site mobilization immediately following project certification, it may be necessary for the project owner to file compliance submittals prior to project certification. In these instances, compliance verifications can be submitted in advance of the required deadlines and the anticipated authorizations to start construction. The project owner must understand that submitting compliance verification requirements prior to these authorizations is at the owner's own risk. Any approval by Energy Commission staff prior to project certification is subject to change based upon the Commission Decision, or amendment thereto. Early staff compliance approvals do not imply that the Energy Commission will certify the project for actual construction and operation.	Prior to commencing construction, a compliance matrix addressing only those conditions that must be fulfilled before the start of construction shall be submitted by the project owner to the CPM.	Y	N/A	prior to	Site Mobilization	10/15; 3/16	8/5/2014	Completed		Original License approved by Start of Construction Letter from CPM, received on 12/9/14. Approved by the CEC Stat of construction letter 6/3/16.
COMPLIANCE	**9**		Y	**Annual Energy Facility Compliance Fee.** Pursuant to the provisions of section 25806 (b) of the Public Resources Code, the project owner is required to pay an annually adjusted compliance fee. Current compliance fee information is available on the Energy Commission's website at http://www.energy.ca.gov/siting/filing_fees.html. The project owner may also contact the CPM for the current fee information. The initial payment is due on the date the Energy Commission dockets its final Decision. All subsequent payments are due by July 1 of each year in which the facility retains its certification.	The initial payment is due on the date the Energy Commission dockets its final Decision. All subsequent payments are due by July 1 of each year in which the facility retains its certification.	N	N/A	N/A	General compliance					
COMPLIANCE	**1**		N	**Unrestricted Access.** The project owner shall take all steps necessary to ensure that the CPM, responsible Energy Commission staff, and delegated agencies or consultants have unrestricted access to the facility site, related facilities, project-related staff, and the records maintained to facilitate audits, surveys, inspections, and general or closure-related site visits. Although the CPM shall normally schedule site visits on dates and times agreeable to the project owner, the CPM reserves the right to make unannounced visits at any time, whether such visits are by the CPM in person or through representatives from Energy Commission staff, delegated agencies, or consultants.		N	as needed	N/A	Inspections					
COMPLIANCE	**2**		N	**Compliance Record.** The project owner shall maintain electronic copies of all project files and submittals on-site, or at an alternative site approved by the CPM, for the operational life and closure of the project. The files shall also contain at least one hard copy of: 1. the facility's Application(s) for Certification; 2. all amendment petitions and Energy Commission orders; 3. all site-related environmental impact and survey documentation; 4. all appraisals, assessments, and studies for the project; 5. all finalized original and amended structural plans and "as-built" drawings for the entire project; 6. all citations, warnings, violations, or corrective actions applicable to the project; and 7. the most current versions of any plans, manuals and training documentation required by the conditions of certification or applicable LORS. Energy Commission staff and delegate agencies shall, upon request to the project owner, be given unrestricted access to the files maintained pursuant to this condition.		N	as needed	N/A	Inspections					

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COMPLIANCE	**3**		Y	**Compliance Verification Submittals.** Verification lead times associated with the start of construction or closure may require the project owner to file submittals during the AFC process, particularly if construction is planned to commence shortly after certification. The verification procedures, unlike the conditions, may be modified as necessary by the CPM. A cover letter from the project owner or an authorized agent is required for all compliance submittals and correspondence pertaining to compliance matters. The cover letter subject line shall identify the project by AFC number, cite the appropriate condition of certification number(s), and give a brief description of the subject of the submittal. When submitting supplementary or corrected information, the project owner shall reference the date of the previous submittal and the condition(s) of certification applicable. All reports and plans required by the project's conditions of certification shall be submitted in a searchable electronic format (.pdf, MS Word, or Excel, etc.) and include standard formatting elements such as a table of contents, identifying by title and page number each section, table, graphic, exhibit, or addendum. All report and/or plan graphics and maps shall be adequately scaled and shall include a key with descriptive labels, directional headings, a bar scale, and the most recent revision date. The project owner is responsible for the content and delivery of all verification submittals to the CPM, whether the actions required by the verification were satisfied by the project owner or an agent of the project owner. All submittals shall be accompanied by an electronic copy on an electronic storage medium, or by e-mail, as agreed upon by the CPM. If hard-copy submittals are required, please address as follows: Compliance Project Manager Carlsbad Energy Center Project (07-AFC-6C) California Energy Commission 1516 Ninth Street (MS-2000) Sacramento, CA 95814		N	N/A	N/A	General compliance				1	
COMPLIANCE	**6**		Y	**Monthly Compliance Reports and Key Events List**.The first MCR is due one month following the docketing of the project's Decision unless otherwise agreed to by the CPM. The first MCR shall include the AFC number and an initial list of dates for each of the events identified on the Key Events List. (The Key Events List form is found at the end of this Compliance Plan). During project pre-construction, construction, or closure, the project owner or authorized agent shall submit an electronic searchable version of the MCR within ten business days after the end of each reporting month, unless otherwise specified by the CPM. MCRs shall be clearly identified for the month being reported. The searchable electronic copy may be filed on an electronic storage medium or by e-mail, subject to CPM approval. The compliance verification submittal condition provides guidance on report production standards, and the MCR shall contain, at a minimum: 1. a summary of the current project construction status, a revised/updated schedule if there are significant delays, and an explanation of any significant changes to the schedule; 2. documents required by specific conditions to be submitted along with the MCR; each of these items shall be identified in the transmittal letter, as well as the conditions they satisfy, and submitted as attachments to the MCR; 3. an initial, and thereafter updated, compliance matrix showing the status of all conditions of certification; 4. a list of conditions that have been satisfied during the reporting period, and a description or reference to the actions that satisfied the condition; 5. a list of any submittal deadlines that were missed, accompanied by an explanation and an estimate of when the information will be provided; 6. a cumulative listing of any approved changes to the conditions of certification; 7. a list of any filings submitted to, and permits issued by, other governmental agencies during the month; 8. a projection of project compliance activities scheduled during the next two months; the project owner shall notify the CPM as soon as any changes are made to the project construction schedule that would affect compliance with conditions of certification; 9. a list of the month's additions to the on-site compliance file; and	The first MCR is due one month following the docketing of the project's Decision unless otherwise agreed to by the CPM. The first MCR shall include the AFC number and an initial list of dates for each of the events identified on the Key Events List. (The Key Events List form is found at the end of this Compliance Plan). During project pre-construction, construction, or closure, the project owner or authorized agent shall submit an electronic searchable version of the MCR within ten business days after the end of each reporting month, unless otherwise specified by the CPM.	N	Monthly	Monthly	Monthly Compliance Report				1	
COMPLIANCE	**7**	b	Y		Include an updated Provisional Closure Plan and Cost Estimate in every fifth-year ACR for CPM review and approval.	N	N/A	Every 5 Years	Annual Compliance Report					
COMPLIANCE	**8**		Y	**Confidential Information.** Any information that the project owner designates as confidential shall be submitted to the Energy Commission's Executive Director with an application for confidentiality, pursuant to Title 20, California Code of Regulations, section 2505 (a). Any information deemed confidential pursuant to the regulations shall remain undisclosed, as provided in Title 20,		N	N/A	N/A	General compliance					
COMPLIANCE	**11**	b	Y		The project owner shall respond to all complaints within 24 hours or the next business day.	N	1	after	Complaint					
COMPLIANCE	**11**	c	Y		In addition to including all complaints, notices, and citations with the MCRs and ACRs, within ten days of receipt, the project owner shall report, and provide copies to the CPM, of all complaints, including noise and lighting complaints, notices of violation, notices of fines, official warnings, and citations.	N	N/A	Monthly	Monthly Compliance Report					
COMPLIANCE	**11**	e	Y		In addition to including all complaints, notices, and citations with the MCRs and ACRs, within ten days of receipt, the project owner shall report, and provide copies to the CPM, of all complaints, including noise and lighting complaints, notices of violation, notices of fines, official warnings, and citations.	N	10	after	Complaint					

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COMPLIANCE	**14**	a	Y	**Non-operation**. If the facility ceases operation temporarily, either planned or unplanned, for longer than one week, but less than three months (or other CPM-approved date), the project owner shall notify the CPM (by telephoneand e-mail), interested agencies, and nearby property owners. Notice of planned non-operation shall be given at least two weeks prior to the scheduled date. Notice of unplanned non-operation shall be provided no later than one week after non-operation begins. For any non-operation, a Repair/Restoration Plan for conducting the activities necessary to restore the facility to availability and reliable and/or improved performance shall be submitted to the CPM within one week after notice of non-operation is given. If non-operation is due to an unplanned incident, temporary repairs and/or corrective actions may be undertaken before the Repair/Restoration Plan is submitted. The Repair/Restoration Plan shall include: 1. identification of operational and non-operational components of the plant; 2. a detailed description of the repair or restoration activities; 3. a proposed schedule for completing the repair or restoration activities; 4. an assessment of whether or not the proposed activities would require changing, adding, and/or deleting any conditions of certification, and/or would cause noncompliance with any applicable LORS; and 5. planned activities during non-operation, including any measures toensure continued compliance with all conditions of certification and LORS.	Notify the CPM (by telephone and e-mail), interested agencies, and nearby property owners of planned non-operation at least two weeks prior to the scheduled date.	N	10	prior to	Planned Non-Operation					
COMPLIANCE	**13**	a		**Incident-Reporting Requirements.** Within one hour after it is safe and feasible, the project owner shall notify the CPM or compliance office manager, by telephone and e-mail, of any incident at the power plant or appurtenant facilities that results, or could result, in any of the following: 1. health and safety impacts on the surrounding population; 2. property damage off-site; 3. response by off-site emergency response agencies; 4. serious on-site injury; 5. serious environmental damage; or 6. emergency reporting to any federal, state, or local agency. The notice shall describe the circumstances, status, and expected duration of the incident. If warranted, as soon as it is safe and feasible, the project owner shall implement the safe shutdown of any non-critical equipment and removal of any hazardous materials and waste that pose a threat to public health and safety and to environmental quality (also, see specific conditions of certification for the technical areas of HAZARDOUS MATERIALS MANAGEMENT and WASTE MANAGEMENT).	Within one hour after it is safe and feasible, the project owner shall notify the CPM or compliance office manager, by telephone and e-mail, of any incident at the power plant or appurtenant facilities	N	1 hour	after	Incident					
COMPLIANCE	**13**	b		Within one week of the incident, the project owner shall submit to the CPM a detailed incident report, which includes, as appropriate, the following information: 1. a brief description of the incident, including its date, time, and location; 2. a description of the cause of the incident, or likely causes if it is still under investigation; 3. the location of any off-site impacts; 4. description of any resultant impacts; 5. a description of emergency response actions associated with the incident; 6. identification of responding agencies; 7. identification of emergency notifications made to federal, state, and/or local agencies; 8. identification of any hazardous materials released and an estimate of the quantity released; 9. a description of any injuries, fatalities, or property damage that occurred as a result of the incident; 10. fines or violations assessed or being processed by other agencies; 11. name, phone number, and e-mail address of the appropriate facility contact person having knowledge of the event; and 12. corrective actions to prevent a recurrence of the incident. The project owner shall maintain all incident report records for the life of the project, including closure. After the submittal of the initial report for any incident, the project owner shall submit to the CPM copies of incident reports within 24 hours of a request.	Within one week of the incident, the project owner shall submit to the CPM a detailed incident report.	N	5	after	Incident					
COMPLIANCE	**14**	b	Y		Notify the CPM (by telephone and e-mail), interested agencies, and nearby property owners of unplanned non-operation shall be provided no later than one week after non-operation begins.	N	5	prior to	Unplanned Non-Operation					
COMPLIANCE	**14**	c	Y		For any non-operation, a Repair/Restoration Plan for conducting the activities necessary to restore the facility to availability and reliable and/or improved performance shall be submitted to the CPM within one week after notice of non-operation is given.	N	5	after	Notice of Non-Operation					

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COMPLIANCE	**14**	d	Y	The CPM will determine if CBO oversight or compliance site monitoring is required. Written updates to the CPM for non-operational periods, until operation resumes, shall include: 1. progress relative to the schedule; 2. developments that delayed or advanced progress or that may delay or advance future progress; 3. any public, agency, or media comments or complaints; and 4. projected date for the resumption of operation. During non-operation, all applicable conditions of certification and reporting requirements remain in effect. If, after one year from the date of the project owner's last report of productive Repair/Restoration Plan work, the facility does not resume operation or does not provide a plan to resume operation, the Executive Director may assign suspended status to the facility and recommend commencement of permanent closure activities. Within 90 days of the Executive Director's determination, the project owner shall do one of the following: 1. If the facility has a closure plan, the project owner shall update it and submit it for Energy Commission review and approval. 2. If the facility does not have a closure plan, the project owner shall develop one consistent with the requirements in this Compliance Plan and submit it for Energy Commission review and approval.	Within 90 days of the Executive Director's determination, the project owner shall do one of the following: 1. If the facility has a closure plan, the project owner shall update it and submit it for Energy Commission review and approval. 2. If the facility does not have a closure plan, the project owner shall develop one consistent with the requirements in this Compliance Plan and submit it for Energy Commission review and approval.	N	90	after	Permanent Closure					
COMPLIANCE	**15**	b		B. Final Closure Plan and Cost Estimate At least three years prior to initiating a permanent facility closure, the project owner shall submit for Energy Commission review and approval, a Final Closure Plan and Cost Estimate, which includes any long-term, post-closure site maintenance and monitoring. Final Closure Plan and Cost Estimate contents include, but are not limited to: 1. a statement of specific Final Closure Plan objectives; 2. a statement of qualifications and resumes of the technical experts proposed to conduct the closure activities, with detailed descriptions of previous power plant closure experience; 3. identification of any facility-related installations not part of the Energy Commission certification, designation of who is responsible for these, and an explanation of what will be done with them after closure; 4. a comprehensive scope of work and itemized budget for permanent plant closure and site maintenance activities, with a description and explanation of methods to be used, broken down by phases, including, but not limited to: a) dismantling and demolition; b) recycling and site clean-up; c) impact mitigation and monitoring; d) site remediation and/or restoration and; e) any contingencies. 5. a revised/updated Final Cost Estimate for all closure activities, by phases, including site monitoring and maintenance costs, and long-term equipment replacement;	At least three years prior to initiating a permanent facility closure, the project owner shall submit for Energy Commission review and approval, a Final Closure Plan and Cost Estimate, which includes any long-term, post-closure site maintenance and monitoring.	N	3 Years	prior to	Permanent Closure					
COMPLIANCE	**15**	c		6. a schedule projecting all phases of closure activities for the power plant site and all appurtenances constructed as part of the Energy Commissioncertified project; 7. an electronic submittal package of all relevant plans, drawings, risk assessments, and maintenance schedules and/or reports, including an above- and below-ground infrastructure inventory map and registered engineer's or delegate CBO's assessment of demolishing the facility; additionally, for any facility that permanently ceased operation prior to submitting a Final Closure Plan and Cost Estimate and for which only minimal or no maintenance has been done since, a comprehensive condition report focused on identifying potential hazards; 8. all information additionally required by the facility's conditions of certification applicable to plant closure; 9. an equipment disposition plan, including: a) recycling and disposal methods for equipment and materials; and b) identification and justification for any equipment and materials that will remain on-site after closure; 10. a site disposition plan, including but not limited to: a) proposed rehabilitation, restoration, and/or remediation procedures, as required by the conditions of certification and applicable LORS; and b) site maintenance activities. 11. identification and assessment of all potential direct, indirect, and cumulative impacts and proposal of mitigation measures to reduce significant adverse impacts to a less-than-significant level; potential impacts to be considered shall include, but not be limited to: a) traffic b) noise and vibration c) soil erosion d) air quality degradation e) solid waste f) hazardous materials g) waste water discharges h) contaminated soil		N								
COMPLIANCE	**16**		N	Previously Licensed Activities in Progress Prior to Approval of the Amended CECP. Tank 5, 6, and 7 demolition activities that were authorized to start prior to the effective date of the Commission Decision approving the Amended CECP license shall not be required to be re-authorized because of changed requirements in the Amended CECP license. Such activities shall, however, comply with the active and ongoing requirements of all conditions that are in effect under the Amended CECP license. Except as provided in the preceding paragraph, upon Energy Commission approval of the Amended CECP license, the license previously granted for the CECP in 2012 is superseded by the amended license and the project owner is no longer authorized to construct the project described in the 2012 license.		N								

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COMPLIANCE	**15**	d		12. identification of all current conditions of certification, LORS, federal, state, regional, and local planning efforts applicable to the facility, and proposed strategies for achieving and maintaining compliance during closure; 13. updated mailing list or listserv of all responsible agencies, potentially interested parties, and property owners within one mile of the facility; 14. identification of alternatives to plant closure and assessment of the feasibility and environmental impacts of these; and 15. description of and schedule for security measures and safe shutdown of all non-critical equipment and removal of hazardous materials and waste (see conditions of certification for Public Health, Waste Management, Hazardous Materials Management, and Worker Safety). If implementation of an Energy Commission-approved Final Closure Plan and Cost Estimate is not initiated within one year of its approval date, it shall be updated and re-submitted to the Commission for supplementary review and approval. If a project owner initiates but then suspends closure activities, and the suspension continues for longer than one year, or subsequently abandons the facility, the Final Closure Plan and Cost Estimate shall be resubmitted to the Commission for supplementary review and approval. The project owner remains liable for all costs of contingency planning and closure.									
CUL	2	a	Y	Prior to the start of ground disturbance, including tank-demolition and soil remediation, if the CRS has not previously worked on the project, the project owner shall provide the CRS with copies of the Application for Certification (AFC), data responses, and confidential cultural resources reports for the project. The project owner shall also provide the CRS and the CPM with maps and drawings showing the footprint of the power plant, all linear facilities, access roads and laydown areas. Maps shall include the appropriate U.S. Geological Survey quadrangles and a map at an appropriate scale (e.g., 1:2000 or 1 inch = 200 feet') for plotting cultural features or materials. If the CRS requests enlargements or strip maps for linear facility routes, the project owner shall provide copies to the CRS and CPM. The CPM shall review submittals and, in consultation with the CRS, approve those that are appropriate for use in cultural resources planning activities.	1. At least 40 days prior to the start of ground disturbance, including tank demolition and soil remediation, the project owner shall provide the AFC, data responses, and confidential cultural resources documents to the CRS, if needed, and the subject maps and drawings to the CRS and CPM. The CPM will review submittals in consultation with the CRS and approve maps and drawings suitable for cultural resources planning activities.	Y	40	prior to	Ground Disturbance	September 24, 2014	9/26/2014	Completed		
CUL	6	a	Y	The project owner shall ensure that the CRS, alternate CRS, or CRMs shall monitor ground disturbance of soils at the project site, along linear facilities and roads, and at parking and other ancillary areas, including wetlands mitigation areas, if cultural materials are identified in these areas during ground-disturbing activities, to ensure there are no impacts to undiscovered resources.	At least 30 days prior to the start of ground disturbance, including tank removal and soil remediation, the CPM will provide to the CRS an electronic copy of a form to be used as a daily monitoring log.	Y	30	prior to	Ground Disturbance	October 4, 2014	9/18/2014	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15.
CUL	**4**	b	Y	All survey reports, Department of Parks and Recreation (DPR) 523 forms, and additional research reports not previously submitted to the California Historical Resources Information System (CHRIS) and the State Historic Preservation Officer (SHPO) shall be included as an appendix to the CRR.	2. Within ten days after CPM approval, the project owner shall provide documentation to the CPM confirming that copies of the CRR have been provided to the SHPO, the CHRIS, and the curating institution, if archaeological materials were collected.	N	10	after	Archaeological monitoring	TBD				
CUL	**7**	b	Y	2. the CRS has completed field notes, measurements, and photography for a DPR 523 primary form. The "Description" entry of the 523 form shall include a recommendation on the significance of the find. The project owner shall submit completed forms to the CPM.	2. Completed DPR form 523s shall be submitted to the CPM for review and approval no later than 24 hours following the notification of the CPM,	N	24 hours	after	Archaeological monitoring	TBD				
CUL	**7**	c	Y	3. the CRS, the project owner, and the CPM have conferred, and the CPM has concurred with the recommended eligibility of the discovery and approved the CRS's proposed data recovery, if any, including the curation of the artifacts, or other appropriate mitigation; and any necessary data recovery and mitigation have been completed.	or 48 hours following the completion of data recordation/recovery, whichever is more appropriate for the subject cultural resource, as determined by the CRS.	N	48 hours	after	Archaeological monitoring	TBD				
CUL	**1**	b	Y		2. At least 10 days prior to a termination or release of the CRS, or within 10 days after the resignation of a CRS, the project owner shall submit the resume of the proposed new CRS to the CPM for review and approval. At the same time, the project owner shall also provide to the approved new CRS the AFC and all cultural documents, field notes, photographs, and other cultural materials generated by the project.	N	10	prior to	Termination of DB, CRS, PRS					
CUL	**1**	c	Y		2. At least ten days prior to a termination or release of the CRS, or within ten days after the resignation of a CRS, the project owner shall submit the resume of the proposed new CRS to the CPM for review and approval. At the same time, the project owner shall also provide to the approved new CRS the AFC and all cultural documents, field notes, photographs, and other cultural materials generated by the project.	N	10	after	Termination of DB, CRS, PRS					
CUL	**2**	d	Y	At a minimum, the CRS shall consult weekly with the project construction manager to confirm area(s) to be worked during the next week, until ground disturbance, including tank removal and soil remediation is completed.	4. On a weekly basis during ground disturbance, including tank removal and soil remediation, a current schedule of anticipated project activity shall be provided to the CRS and CPM by letter, email, or fax.	N	N/A	Weekly	Construction					
CUL	**2**	e	Y	The project owner shall notify the CRS and CPM of any changes to the scheduling of the construction phases.	5. Within 5 days of identifying changes, the project owner shall provide written notice of any changes to scheduling of construction phase.	N	5	after	Changes in construction phase scheduling					

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CUL	**4**	a	Y	The project owner shall submit the Cultural Resources Report (CRR) to the CPM for approval. The CRR shall be written by or under the direction of the CRS and shall be provided in the ARMR format. The CRR shall report on all field activities including dates, times and locations, findings, samplings, and analyses.	1. Within 90 days after completion of ground disturbance (including landscaping), the project owner shall submit the CRR to the CPM for review and approval. If any reports have previously been sent to the CHRIS, then receipt letters from the CHRIS or other verification of receipt shall be included in an appendix.	N	90	after	Construction					
CUL	**4**	c	Y	If the project owner requests a suspension of construction activities, then a draft CRR that covers all cultural resources activities associated with the project shall be prepared by the CRS and submitted to the CPM for review and approval within 30 days of the suspension/extension request. The draft CRR shall be retained at the project site in a secure facility until construction resumes or the project is withdrawn. If the project is withdrawn, then a final CRR shall be submitted to the CPM for review and approval at the same time as the withdrawal request.	3. Within 30 days after requesting a suspension of construction activities, the project owner shall submit a draft CRR to the CPM for review and approval.	N	30	after	requesting a suspension of construction activities					
CUL	**5**	b	Y	7. A sticker that shall be placed on hard hats indicating that environmental training has been completed. No ground disturbance shall occur prior to implementation of the WEAP program, unless specifically approved by the CPM.	2. The project owner shall provide in the monthly compliance report (MCR) the number of persons who have completed the training in the prior month and a running total of all persons who have completed the training to date.	N	N/A	Monthly	Monthly Compliance Report					
CUL	**6**	b	Y		While monitoring is ongoing, the project owner shall include in each MCR a copy of the monthly summary report of cultural resources-related monitoring prepared by the CRS.	N	N/A	Monthly	Monthly Compliance Report					
CUL	**6**	c	Y	Monitoring for this project shall be restricted to the archaeological monitoring of earth-moving activities on the project site and laydown areas, including soil remediation, for as long as the activities are ongoing, in those areas where cultural materials are identified during these earth-moving activities. Archaeological monitoring shall require at least one monitor where machines are actively disturbing soils in areas where cultural material is identified. If an excavation area or areas are too large for one monitor to effectively observe the soil removal, one or more additional monitors shall be retained to observe the area. In the event that the CRS believes that the current level of monitoring is not appropriate in certain locations, a letter or e-mail detailing the justification for changing the level of monitoring shall be provided to the CPM for review and approval prior to any change in the level of monitoring.	1. When monitoring is occurring, daily the CRS shall provide a statement that "no cultural resources more than 50 years of age were discovered" to the CPM as an e-mail or in some other form acceptable to the CPM. The statement shall also include information based on the twice daily observations of soils by the archaeological monitor and indicate the likelihood of disturbing native soils.	N	N/A	Daily	Archaeological monitoring					
CUL	**6**	d	Y	If future geotechnical core borings are conducted for the project, they shall be monitored and the boring cores examined by a geoarchaeologist or qualified archaeologist for the presence of cultural material. If cultural material is identified, that information shall be reported to the CPM within 24 hours. Whether or not cultural material is identified, the results of the core examinations shall be provided in a report to the CPM. In the event that the CRS determines that the current level of monitoring is not appropriate in certain locations, a letter or e-mail detailing the justification for changing the level of monitoring shall be provided to the CPM for review and approval prior to any change in the level of monitoring.	If the CRS concludes that daily reporting is no longer necessary, a letter or e-mail providing a detailed justification for the decision to reduce or end daily reporting shall be provided to the CPM for review and approval at least 24 hours prior to reducing or ending daily reporting.	N	24 hours	prior to	Change in monitoring					
CUL	**6**	e	Y		2. At least 24 hours prior to implementing a proposed change in monitoring level, documentation justifying the change shall be submitted to the CPM for review and approval.	N	24 hours	prior to	Change in monitoring					
CUL	**6**	f	Y	The research design in the CRMMP shall govern the collection, treatment, retention/disposal, and curation of any archaeological materials encountered. On forms provided by the CPM, CRMs shall keep a daily log of any monitoring and other cultural resources activities and any instances of non-compliance with the Conditions and/or applicable LORS. From these logs, the CRS shall compile a monthly monitoring summary report to be included in the Monthly Compliance Report (MCR). If there are no monitoring activities, the summary report shall specify why monitoring has been suspended. The CRS, at his or her discretion, or at the request of the CPM, may informally discuss cultural resources monitoring and mitigation activities with Energy Commission technical staff. Cultural resources monitoring activities are the responsibility of the CRS. Any interference with monitoring activities, removal of a monitor from duties assigned by the CRS, or direction to a monitor to relocate monitoring activities by anyone other than the CRS shall be considered non-compliance with these Conditions.	3. If geotechnical core borings are conducted and cultural material is identified by a geoarchaeologist or archaeologist, the CPM shall be notified within 24 hours.	N	24 hours	within	Geotech core borings taken & cultural material identified					
CUL	**6**	f	Y	Upon becoming aware of any incidents of non-compliance with the Conditions and/or applicable LORS, the CRS and/or the project owner shall notify the CPM by telephone or e-mail within 24 hours. The CRS shall also recommend corrective action to resolve the problem or achieve compliance with the Conditions. When the issue is resolved, the CRS shall write a report describing the issue, the resolution of the issue, and the effectiveness of the resolution measures. This report shall be provided in the next MCR for the review of the CPM. The project owner shall retain a Native American monitor to monitor ground disturbance in any areas where cultural resouce monitoring is required. Informational lists of concerned Native Americans and guidelines for monitoring shall be obtained from the Native American Heritage Commission. Preference in selecting a monitor shall be given to Native Americans with traditional ties to the area that shall be monitored. If efforts to obtain the services of a qualified Native American monitor are unsuccessful, the project owner shall immediately inform the CPM. The CPM will either identify potential monitors or will allow ground disturbance, including tank removal and soil remediation to proceed without a Native American monitor.	Within 30 days after the examination of the core borings is completed, the CRS shall provide a copy of the results of the core examinations in a report to the CPM	N	30	after	Geotech core borings taken					

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CUL	**8**	a	Y	If fill soils must be acquired from a non-commercial borrow site or disposed of to a non-commercial disposal site, unless less-than-five-year-old surveys of these sites for archaeological resources are documented to and approved by the CPM, the CRS shall survey the borrow and/or disposal site(s) for cultural resources and record on DPR 523 forms any that are identified. When the survey is completed, the CRS shall convey the results and recommendations for further action to the project owner and the CPM, who will determine what, if any, further action is required.	As soon as the project owner knows that a non-commercial borrow site and/or disposal site will be used, he/she shall notify the CRS and CPM and provide documentation of previous archaeological survey, if any, dating within the past five years, for CPM approval.	N	N/A	Immediately	Use of non-commercial borrow site and/or disposal site					
CUL	**8**	b	Y	If the CPM determines that significant archaeological resources that cannot be avoided are present at the borrow site, all these conditions of certification shall apply. The CRS shall report on the methods and results of these surveys in the CRR.	In the absence of documentation of recent archaeological survey, at least 30 days prior to any soil borrow or disposal activities on the non-commercial borrow and/or disposal sites, the CRS shall survey the site/s for archaeological resources. The CRS shall notify the project owner and the CPM of the results of the cultural resources survey, with recommendations, if any, for further action.	N	30	prior to	any soil borrow or disposal activities on the non-commercial borrow and/or disposal sites					
CUL	1	d	Y		3. At least 20 days prior to ground disturbance, including tank demolition and soil remediation, the CRS shall provide a letter naming anticipated CRMs for the project and stating that the identified CRMs meet the minimum qualifications for cultural resources monitoring required by this Condition. CRMs possessing current hazardous waste operations certificates shall be identified. If additional CRMs are obtained during the project, the CRS shall provide additional letters to the CPM identifying the CRMs and attesting to the qualifications of the CRMs, at least five days prior to the CRMs beginning on-site duties.	Y	20	prior to	Ground Disturbance		7/29/2014	Completed		Approved by Start of Construction Letter from CPM, received on 12/9/14
CUL	1	a	Y	Prior to the start of ground disturbance*, including tank demolition and soil remediation, the project owner shall obtain the services of a Cultural Resources Specialist (CRS) and one or more alternates, if alternates are needed. The CRS shall manage all monitoring, mitigation, curation, and reporting activities required in accordance with the Conditions of Certification (Conditions). The CRS may elect to obtain the services of Cultural Resources Monitors (CRMs) and other technical specialists, if needed, to assist in monitoring, mitigation, and curation activities. The project owner shall ensure that the CRS makes recommendations regarding the eligibility for listing in the California Register of Historical Resources (CRHR) of any cultural resources that are newly discovered or that may be affected in an unanticipated manner (discovery). No ground disturbance, including tank removal and soil remediation, shall occur prior to CPM approval of the CRS, unless specifically approved by the CPM. Approval of a CRS may be denied or revoked for non-compliance on this project. * "Ground disturbance" includes "preconstruction site mobilization"; "construction ground disturbance"; and "construction grading, boring and trenching," as defined in the General Conditions for this project.	1. At least 45 days prior to the start of ground disturbance, including tank removal and soil remediation, the project owner shall submit the resume for the CRS, and alternate(s) if desired, to the CPM for review and approval.	Y	45	prior to	Ground Disturbance		7/29/2014	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15.
CUL	1	f	Y	CULTURAL RESOURCES MONITORS CRMs shall have the following qualifications: 1. a BS or BA degree in anthropology, archaeology, historical archaeology or a related field and one year's experience monitoring in California; or 2. an AS or AA degree in anthropology, archaeology, historical archaeology, or a related field, and four years experience monitoring in California; or 3. enrollment in upper division classes pursuing a degree in the fields of anthropology, archaeology, historical archaeology, or a related field, and two years of monitoring experience in California. 4. CRMs assigned to monitor during tank removal and soil remediation shall hold an appropriate hazardous waste operations training certificate(s). CULTURAL RESOURCES TECHNICAL SPECIALISTS The resume(s) of any additional technical specialists, e.g., historical archaeologist, historian, architectural historian, and/or physical anthropologist, shall be submitted to the CPM for approval.	5. At least ten days prior to the start of ground disturbance, including tank removal and soil remediation, the project owner shall confirm in writing to the CPM that the approved CRS will be available for on-site work and is prepared to implement the Cultural Resources Conditions.	Y	10	prior to	Ground Disturbance		7/29/2014	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15.
CUL	**1**	e	Y	CULTURAL RESOURCES SPECIALIST The resumes for the CRS and alternate(s) shall include information demonstrating to the satisfaction of the CPM that their training and backgrounds conform to the U.S. Secretary of Interior's Professional Qualifications Standards, as published in the Code of Federal Regulations, 36 CFR Part 61. In addition, the CRS shall have the following qualifications: 1. The CRS's qualifications shall be appropriate to the needs of the project and shall include a background in anthropology, archaeology, history, architectural history, or a related field; and 2. At least three years of archaeological or historic, as appropriate, resources mitigation and field experience in California. 3. At least one year of experience in a decision-making capacity on cultural resources projects in California and the appropriate training and experience to knowledgably make recommendations regarding the significance of cultural resources. The resumes of the CRS and alternate CRS shall include the names and telephone numbers of contacts familiar with the work of the CRS/alternate CRS on referenced projects and demonstrate to the satisfaction of the CPM that the CRS has the appropriate education and experience to accomplish the cultural resource tasks that must be addressed during ground disturbance, including tank removal and soil remediation. After all ground disturbance is completed and the CRS has fulfilled all responsibilities specified in these cultural resources conditions, the project owner may discharge the CRS, if the CPM approves. With the discharge of the CRS, these cultural resources conditions no longer apply to the activities of this power plant.	4. At least 10 days prior to beginning tasks, the resume(s) of any additional technical specialists shall be provided to the CPM for review and approval.	Y	10	prior to	Additional bio, cultural, paleo staff				1	

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CUL	3	a		Prior to the start of ground disturbance, including tank demolition and soil remediation, the project owner shall submit the Cultural Resources Monitoring and Mitigation Plan (CRMMP), as prepared by or under the direction of the CRS, to the CPM for review and approval. The CRMMP shall be provided in the Archaeological Resource Management Report (ARMR) format, and, per ARMR guidelines, the author's name shall appear on the title page of the CRMMP. The CRMMP shall identify general and specific measures to minimize potential impacts to sensitive cultural resources. Implementation of the CRMMP shall be the responsibility of the CRS and the project owner. Copies of the CRMMP shall reside with the CRS, alternate CRS, each monitor, and the project owner's on-site construction manager. No ground disturbance, including tank removal and soil remediation, shall occur prior to CPM approval of the CRMMP, unless specifically approved by the CPM. The CRMMP shall include, but not be limited to, the following elements and measures: 1. A general research design that includes a discussion of archaeological research questions and testable hypotheses specifically applicable to the project area, and a discussion of artifact collection, retention/disposal, and curation policies as related to the research questions formulated in the research design. A prescriptive treatment plan may be included in the CRMMP for limited resource types. A refined research design will be prepared for any resource where data recovery is required. 2. The following statement included in the Introduction: "Any discussion, summary, or paraphrasing of the Conditions in this CRMMP is intended as general guidance and as an aid to the user in understanding the Conditions and their implementation. The Conditions, as written in the Commission Decision, shall supersede any summarization, description, or interpretation of the Conditions in the CRMMP. The Cultural Resources Conditions of Certification from the Commission Decision are contained in Appendix A." 3. Identification of the person(s) expected to perform each of the tasks, his or her responsibilities, and the reporting relationships between project construction management and the mitigation and monitoring team.	1. At least 30 days prior to the start of ground disturbance, including tank demolition and soil remediation, the project owner shall submit the subject CRMMP to the CPM for review and approval. Ground disturbance, including tank removal and soil remediation, may not commence until the CRMMP is approved, unless specifically approved by the CPM. 2. At least 30 days prior to the start of ground disturbance, including tank demolition and soil remediation, a letter shall be provided to the CPM indicating that the project owner agrees to pay curation fees for any materials collected as a result of the archaeological investigations (survey, testing, data recovery).	Y	30	prior to	Ground Disturbance		10/3/2014	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15.
CUL	5	a	Y	Prior to and for the duration of ground disturbance, including tank demolition and soil remediation, the project owner shall provide Worker Environmental Awareness Program (WEAP) training to all new workers within their first week of employment. The training shall be prepared by the CRS, may be conducted by any member of the archaeological team, and may be presented in the form of a video. The CRS shall be available (by telephone or in person) to answer questions posed by employees. The training may be discontinued when ground disturbance, including tank removal and soil remediation, is completed or suspended, but shall be resumed when ground disturbance, such as landscaping, resumes. The training shall include: 1. A discussion of applicable laws and penalties under the law; 2. Samples or visuals of artifacts that might be found in the project vicinity; 3. Instruction that the CRS, alternate CRS, and CRMs have the authority to halt construction in the area of a discovery to an extent sufficient to ensure that the resource is protected from further impacts, as determined by the CRS; 4. Instruction that employees are to halt work on their own in the vicinity of a potential cultural resources discovery and shall contact their supervisor and the CRS or CRM, and that redirection of work would be determined by the construction supervisor and the CRS; 5. An informational brochure that identifies reporting procedures in the event of a discovery; 6. An acknowledgement form signed by each worker indicating that he/she has received the training; and	1. At least 30 days prior to the beginning of ground disturbance, including tank demolition, the CRS shall provide the training program draft text and graphics and the informational brochure to the CPM for review and approval, and the CPM will provide to the project owner a WEAP Training Acknowledgement form for each WEAP-trained worker to sign.	Y	30	prior to	Ground Disturbance		8/25/2014	Completed	1	Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15. Approved by Start of Below Grade Demolition/Berm Removal 1/15/16
CUL	5	c	Y		At least 10 days prior to site (and related facilities) mobilization, the project owner shall submit two copies of the CPM-approved materials. The signed training acknowledgement forms from construction shall be kept on file by the project owner for a period of at least 6 months after the start of commercial operation.	Y	10	prior to	Site Mobilization		8/25/2014	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15. Approved by Start of Below Grade Demolition/Berm Removal 1/15/16
CUL	7	a	Y	The project owner shall grant authority to halt construction to the CRS, alternate CRS, and the CRMs in the event of a discovery. Redirection of ground disturbance, including tank removal and soil remediation, shall be accomplished under the direction of the construction supervisor in consultation with the CRS. In the event cultural resources more than 50 years of age or considered exceptionally significant are found, or impacts to such resources can be anticipated, construction shall be halted or redirected in the immediate vicinity of the Discovery sufficient to ensure that the resource is protected from further impacts. The halting or redirection of construction shall remain in effect until the CRS has visited the Discovery, and all of the following have occurred: 1. the CRS has notified the project owner, and the CPM has been notified within 24 hours of the discovery, or by Monday morning if the cultural resources discovery occurs between 8:00 a.m. on Friday and 8:00 a.m. on Sunday morning, including a description of the discovery (or changes in character or attributes), the action taken (i.e. work stoppage or redirection), a recommendation of eligibility, and recommendations for mitigation of any cultural resources discoveries, whether or not a determination of significance has been made.	1. At least 30 days prior to the start of ground disturbance, including tank demolition, the project owner shall provide the CPM and CRS with a letter confirming that the CRS, alternate CRS, and CRMs have the authority to halt construction activities in the vicinity of a cultural resources discovery, and that the project owner shall ensure that the CRS notifies the CPM within 24 hours of a discovery, or by Monday morning if the cultural resources discovery occurs between 8:00 a.m. on Friday and 8:00 a.m. on Sunday morning.	Y	30	prior to	Ground Disturbance		9/26/2014	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15.
CUL	**2**	b	Y	The CRS and CRM shall coordinate their oversight of ground disturbance with the Geotechnical Investigation required by the Facility Design Conditions of Certification. No ground disturbance, including tank removal and soil remediation, shall occur prior to CPM approval of maps and drawings, unless specifically approved by the CPM.	2. If there are changes to any project-related footprint, revised maps and drawings shall be provided at least 15 days prior to start of ground disturbance, including tank removal and soil remediation, for those changes.	Y	15	prior to	As Needed				1	As Needed

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CUL	**2**	c	Y	If construction of the project should proceed in phases, maps and drawings not previously provided, shall be submitted prior to the start of each phase. Written notification identifying the proposed schedule of each project phase shall be provided to the CRS and CPM.	3. If project construction is phased, if not previously provided, the project owner shall submit the subject maps and drawings 15 days prior to each phase.	Y	15	prior to	Start of each Phase				1	
CUL	**3**	b		4. A description of the manner in which Native American observers or monitors will be included, the procedures to be used to select them, their roles and responsibilities, and provisions to comply with NAHC Guidelines. 5. A statement that all cultural resources encountered shall be recorded on a Department of Parks and Recreation (DPR) form 523 and mapped and photographed. In addition, all archaeological materials retained as a result of the archaeological investigations (survey, testing, data recovery) shall be curated in accordance with the California State Historical Resources Commission's Guidelines for the Curation of Archaeological Collections, into a retrievable storage collection in a public repository or museum. 6. A statement that the project owner will pay all curation fees and a copy of an agreement with, or other written commitment from, a curation facility to accept artifacts from this project. Any agreements concerning curation will be retained and available for audit for the life of the project. 7. A statement that the CRS has access to equipment and supplies necessary for site mapping, photography, and recovery of any cultural resources materials that are encountered during construction and cannot be treated prescriptively. 8. A description of the contents and format of the Cultural Resources Report (CRR), which shall be prepared according to ARMR guidelines.									
ELEC	**1**		Y	Prior to the start of any increment of electrical construction for all electrical equipment and systems 120 Volts or higher (see a representative list, below), with the exception of underground duct work and any physical layout drawings and drawings not related to code compliance and life safety, the project owner shall submit, for CBO design review and approval, the proposed final design, specifications, and calculations (2013 CBC, Appendix Chapter 1, § 107, Submittal Documents). Upon approval, the above listed plans, together with design changes and design change notices, shall remain on the site or at another accessible location for the operating life of the project. The project owner shall request that the CBO inspect the installation to ensure compliance with the requirements of applicable LORS (2013 CBC, Appendix Chapter 1, § 105, Permits; § 110, Inspections). All transmission facilities (lines, switchyards, switching stations, and substations) are handled in conditions of certification in the Transmission System Engineering section of this Decision. A. Final plant design plans shall include: 1. one-line diagrams for the 13.8 kV, 4.16 kV and 120/480 V systems; and 2. system grounding drawings. B. Final plant calculations must establish: 1. short-circuit ratings of plant equipment; 2. ampacity of feeder cables; 3. voltage drop in feeder cables; 4. system grounding requirements; 5. coordination study calculations for fuses, circuit breakers and protective relay settings for the 13.8 kV, 4.16 kV and 120/480 V systems; and 6. lighting energy calculations. C. The following activities shall be reported to the CPM in the monthly compliance report: 1. Receipt or delay of major electrical equipment; 2. Testing or energization of major electrical equipment; and 3. A signed statement by the registered electrical engineer certifying that the proposed final design plans and specifications conform to requirements set forth in the Energy Commission decision.	At least 30 days (or within a project owner- and CBO-approved alternative time frame) prior to the start of each increment of electrical construction, the project owner shall submit to the CBO for design review and approval the above-listed documents. The project owner shall include in this submittal a copy of the signed and stamped statement from the responsible electrical engineer attesting compliance with the applicable LORS, and shall send the CPM a copy of the transmittal letter in the next monthly compliance report.	n	30	prior to	start of each increment of electrical construction	December 10, 2017	4/6/16; 5/13/16; 8/9/17; 9/15/17; 9/21/17; 11/23/17; 1/6/18; 2/16/18	Completed		Final letter dated 2/26/18.
GEN	5	e	Y	E. The mechanical engineer shall be responsible for, and sign and stamp a statement with, each mechanical submittal to the CBO, stating that the proposed final design plans, specifications, and calculations conform to all of the mechanical engineering design requirements set forth in the Energy Commission's decision.	At least 30 days (or within a project owner and CBO-approved alternative time frame) prior to the start of construction, the project owner shall submit to the CBO for review and approval, resumes and registration numbers of the responsible design engineer, mechanical engineer, and electrical engineer assigned to the project.	Y	30	prior to	Construction	2015	Civil/Structural, Elec., Mech. 11/20/15	Completed		
GEN	2		Y	Before submitting the initial engineering designs for CBO review, the project owner shall furnish the CPM and the CBO with a schedule of facility design submittals, master drawing and master specifications lists. The schedule shall contain a list of proposed submittal packages of designs, calculations, and specifications for major structures and equipment. To facilitate audits by Energy Commission staff, the project owner shall provide specific packages to the CPM upon request.	At least 60 days (or within a project owner- and CBO-approved alternative time frame) prior to the start of rough grading, the project owner shall submit to the CBO and to the CPM the schedule, the master drawing and master specifications lists of documents to be submitted to the CBO for review and approval. These documents shall be the pertinent design documents for the major structures and equipment listed in FACILITY DESIGN Table 2, below. Major structures and equipment shall be added to or deleted from the table only with CPM approval. The project owner shall provide schedule updates in the monthly compliance report.	Y	60	prior to	Site Grading	10/15	10/27/2015	Completed		Approved by the CEC Stat of construction letter 6/3/16.

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GEN	4		Y	Prior to the start of rough grading, the project owner shall assign a California- registered architect, structural engineer, or civil engineer, as the resident engineer in charge of the project (2013 California Administrative Code, § 4-209, Designation of Responsibilities). All transmission facilities (lines, switchyards, switching stations, and substations) are addressed in the conditions of certification in the Transmission System Engineering section of this document. The resident engineer may delegate responsibility for portions of the project to other registered engineers. Registered mechanical and electrical engineers may be delegated responsibility for mechanical and electrical portions of the project, respectively. A project may be divided into parts, provided that each part is clearly defined as a distinct unit. Separate assignments of general responsibility may be made for each designated part. The resident engineer shall: 1. Monitor progress of construction work requiring CBO design review and inspection to ensure compliance with LORS; 2. Ensure that construction of all facilities subject to CBO design review and inspection conforms in every material respect to applicable LORS, these conditions of certification, approved plans, and specifications; 3. Prepare documents to initiate changes in approved drawings and specifications when either directed by the project owner or as required by the conditions of the project; 4. Be responsible for providing project inspectors and testing agencies with complete and up-to-date sets of stamped drawings, plans, specifications, and any other required documents; 5. Be responsible for the timely submittal of construction progress reports to the CBO from the project inspectors, the contractor, and other engineers who have been delegated responsibility for portions of the project; and 6. Be responsible for notifying the CBO of corrective action or the disposition of items noted on laboratory reports or other tests when they do not conform to approved plans and specifications. The resident engineer shall have the authority to halt construction and to require changes or remedial work if the work does not meet requirements.	At least 30 days (or within a project owner- and CBO-approved alternative time frame) prior to the start of rough grading, the project owner shall submit to the CBO for review and approval, the resume and registration number of the resident engineer and any other delegated engineers assigned to the project. The project owner shall notify the CPM of the CBO's approvals of the resident engineer and other delegated engineer(s) within five days of the approval. If the resident engineer or the delegated engineer(s) is subsequently reassigned or replaced, the project owner has five days to submit the resume and registration number of the newly assigned engineer to the CBO for review and approval. The project owner shall notify the CPM of the CBO's approval of the new engineer within 5 days of the approval.	Y	30	prior to	Site Grading	11/15	11/19/2015	Completed		CBO approval 1/25/16. Approved by the CEC Stat of construction letter 6/3/16.
GEN	5	c	Y	C. The engineering geologist shall: 1. Review all the engineering geology reports and prepare a final soils grading report; and 2. Be present, as required, during site grading and earthwork to provide consultation and monitor compliance with the requirements set forth in the 2013 California Administrative Code, § 4-211, Observation and Inspection of Construction (depending on the site conditions, this may be the responsibility of either the soils engineer, the engineering geologist, or both).	At least 30 days (or within a project owner- and CBO-approved alternative time frame) prior to the start of rough grading, the project owner shall submit to the CBO for review and approval, the resume and registration number of the resident engineer and any other delegated engineers assigned to the project. The project owner shall notify the CPM of the CBO's approvals of the resident engineer and other delegated engineer(s) within five days of the approval	Y	30	prior to	Rough Grading	11/15	Engineering Geologist 8/4/15;	Completed		
GEN	**8**		Y		Within 90 days of the completion of construction, the project owner shall provide to the CBO three sets of electronic copies of the above documents at the project owner's expense. These are to be provided in the form of "read only" files (Adobe .pdf 6.0), with restricted (password-protected) printing privileges, on archive quality compact discs.	N	90	after	Completion of Project Construction	November 20, 2018				
GEN	**1**	e	Y		Within 30 days following receipt of the certificate of occupancy, the project owner shall submit to the compliance project manager (CPM) a statement of verification, signed by the responsible design engineer, attesting that all designs, construction, installation, and inspection requirements of the applicable LORS and the Energy Commission's decision have been met in the area of facility design.	N	30	after	Receipt of Certificate of Occupancy	November 11, 2018				
GEN	**1**	f	Y		The project owner shall provide the CPM a copy of the certificate of occupancy within 30 days of receipt from the CBO (2013 CBC, Appendix Chapter 1, § 111, Certificate of Occupancy).	N	30	after	Receipt of Certificate of Occupancy	November 11, 2018				
GEN	**6**		Y	Prior to the start of an activity requiring special inspection, the project owner shall assign to the project qualified and certified special inspector(s) who shall be responsible for the special inspections required by the 2013 CBC, Chapter 17, § 1704; Special Inspections, Chapter 17A, § 1704A, Special Inspections; and Appendix Chapter 1, § 110, Inspections. All transmission facilities (lines, switchyards, switching stations, and substations) are handled in conditions of certification in the Transmission System Engineering section of this document. A certified weld inspector, certified by the American Welding Society (AWS), and/or American Society of Mechanical Engineers (ASME) as applicable, shall inspect welding performed on site requiring special inspection (including structural, piping, tanks and [ressure vessels). The special inspector shall: 1. Be a qualified person who shall demonstrate competence, to the satisfaction of the CBO, for inspection of the particular type of construction requiring special or continuous inspection; 2. Observe the work assigned for conformance with the approved design drawings and specifications; 3. Furnish inspection reports to the CBO and resident engineer. All discrepancies shall be brought to the immediate attention of the resident engineer for correction, then, if uncorrected, to the CBO and the CPM for corrective action [2013 CBC, Chapter 17, § 1704.2.4, Report Requirements]; and 4. Submit a final signed report to the resident engineer, CBO, and CPM, stating whether the work requiring special inspection was, to the best of the inspector's knowledge, in conformance with the approved plans, specifications, and other provisions of the applicable edition of the CBC.	If the designated responsible engineer is subsequently reassigned or replaced, the project owner has five days in which to submit the resume and registration number of the newly assigned engineer to the CBO for review and approval. The project owner shall notify the CPM of the CBO's approval of the new engineer within five days of the approval.	N	15	prior to	Special Inspection Activities	111/5			1	

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GEN	**8**		Y	The project owner shall obtain the CBO's final approval of all completed work that has undergone CBO design review and approval. The project owner shall request the CBO to inspect the completed structure and review the submitted documents. The project owner shall notify the CPM after obtaining the CBO's final approval. The project owner shall retain one set of approved engineering plans, specifications, and calculations (including all approved changes) at the project site or at an alternative site approved by the CPM during the operating life of the project (2013 CBC, Appendix Chapter 1, § 110, Inspections). Electronic copies of the approved plans, specifications, calculations, and marked-up as-builts shall be provided to the CBO for retention by the CPM.	Within 15 days of the completion of any work, the project owner shall submit to the CBO, with a copy to the CPM, in the next monthly compliance report, (a) a written notice that the completed work is ready for final inspection, and (b) a signed statement that the work conforms to the final approved plans. After storing the final approved engineering plans, specifications, and calculations described above, the project owner shall submit to the CPM a letter stating both that the above documents have been stored and the storage location of those documents.	N	15	after	Completion of any work approved by CBO	TBD				
GEN	5	f	Y	F. The electrical engineer shall: 1. Be responsible for the electrical design of the project; and 2. Sign and stamp electrical design drawings, plans, specifications, and calculations.	At least 30 days (or within a project owner and CBO-approved alternative time frame) prior to the start of construction, the project owner shall submit to the CBO for review and approval, resumes and registration numbers of the responsible design engineer, mechanical engineer, and electrical engineer assigned to the project. The project owner shall notify the CPM of the CBO's approvals of the responsible engineers within five days of the approval.	Y	30	prior to	Construction	TBD	Civil/Structural, Elec., Mech. 11/20/15	Completed		
GEN	**1**	a	Y	The project owner shall design, construct, and inspect the project in accordance with the 2013 California Building Standards Code (CBSC), also known as Title 24, California Code of Regulations, which encompasses the California Building Code (CBC), California Administrative Code, California Electrical Code, California Mechanical Code, California Plumbing Code, California Energy Code, California Fire Code, California Code for Building Conservation, California Reference Standards Code, and all other applicable engineering laws, ordinances, regulations and standards (LORS) in effect at the time initial design plans are submitted to the chief building official (CBO) for review and approval (the CBSC in effect is the edition that has been adopted by the California Building Standards Commission and published at least 180 days previously). The project owner shall ensure that all the provisions of the above applicable codes are enforced during the construction, addition, alteration, moving, demolition, repair, or maintenance of the completed facility, including the demolition of above-ground fuel oil storage tanks 1, 2, and 4 (ASTs 1, 2, and 4), and the demolition of the Encina Power Station (EPS) (2013 CBC, Appendix Chapter 1, §1.1.3, Scope). All transmission facilities (lines, switchyards, switching stations and substations) are covered in the conditions of certification in the Transmission System Engineering section of this document. In the event that the initial engineering designs are submitted to the CBO when the successor to the 2013 CBSC is in effect, the 2013 CBSC provisions shall be replaced with the applicable successor provisions. Where, in any specific case, different sections of the code specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall govern. The project owner shall ensure that all contracts with contractors, subcontractors, and suppliers clearly specify that all work performed and materials supplied comply with the codes listed above.	At least 30 days prior to the demolition of ASTs 1, 2, and 4, the project owner shall contact the CBO to obtain the CBO's approval of the work.	N	30	prior to	Demolition of ASTs 1, 2, and 4			Completed		
GEN	**1**	b	N		At least 5 days prior to the start of this demolition, the project owner shall notify the CPM of the CBO's approval of this work.	N	5	prior to	Demolition of ASTs 1, 2, and 4		Completed			
GEN	**1**	c	N		At least 30 days prior to the demolition of the EPS, the project owner shall contact the CBO to obtain the CBO's approval of the work.	N	30	prior to	Demolition of the EPS					
GEN	**1**	d	N		At least 5 days prior to the start of this demolition, the project owner shall notify the CPM of the CBO's approval of this work.	N	5	prior to	Demolition of the EPS					
GEN	**1**	g	Y		Once the certificate of occupancy has been issued, the project owner shall inform the CPM at least 30 days prior to any construction, addition, alteration, moving, demolition, repair, or maintenance to be performed on any portion(s) of the completed facility that requires CBO approval for compliance with the above codes. The CPM will then determine if the CBO needs to approve the work.	N	30	prior to	Post Receipt of Certificate of Occupancy, Any construction, maintenance, etc.	September 1, 2018				
GEN	**3**		Y	The project owner shall make payments to the CBO for design review, plan checks, and construction inspections, based upon a reasonable fee schedule to be negotiated between the project owner and the CBO. These fees may be consistent with the fees listed in the 2013 CBC (2013 CBC, Appendix Chapter 1, § 109, Fees), adjusted for inflation and other appropriate adjustments; may be based on the value of the facilities reviewed; may be based on hourly rates; or may be otherwise agreed upon by the project owner and the CBO.	The project owner shall make the required payments to the CBO in accordance with the agreement between the project owner and the CBO. The project owner shall send a copy of the CBO's receipt of payment to the CPM in the next monthly compliance report indicating that applicable fees have been paid.	N	N/A	N/A	MCR				1	
GEN	**7**		Y	If any discrepancy in design and/or construction is discovered in any engineering work that has undergone CBO design review and approval, the project owner shall document the discrepancy and recommend required corrective actions (2013 CBC, Appendix Chapter 1, § 109.6, Approval Required; Chapter 17, § 1704.2.4, Report Requirements). The discrepancy documentation shall be submitted to the CBO for review and approval. The discrepancy documentation shall reference this condition of certification and, if appropriate, applicable sections of the CBC and/or other LORS.	The project owner shall transmit a copy of the CBO's approval of any corrective action taken to resolve a discrepancy to the CPM in the next monthly compliance report. If any corrective action is disapproved, the project owner shall advise the CPM, within five days, of the reason for disapproval and the revised corrective action to obtain CBO's approval.	N	N/A	N/A	Corrective Action					

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GEN	**5**	d	N	D. The design engineer shall: 1. Be directly responsible for the design of the proposed structures and equipment supports; 2. Provide consultation to the resident engineer during design and construction of the project; 3. Monitor construction progress to ensure compliance with engineering LORS; 4. Evaluate and recommend necessary changes in design; and 5. Prepare and sign all major building plans, specifications, and calculations.	At least 30 days (or within a project owner and CBO-approved alternative time frame) prior to the start of construction, the project owner shall submit to the CBO for review and approval, resumes and registration numbers of the responsible design engineer, mechanical engineer, and electrical engineer assigned to the project. The project owner shall notify the CPM of the CBO's approvals of the responsible engineers within five days of the approval.	Y	30	prior to	Construction		11/19/2015	Completed	1	Approved by the CEC Stat of construction letter 6/3/16.
GEN	5	a	Y	Prior to the start of rough grading, the project owner shall assign at least one of each of the following California registered engineers to the project: a civil engineer; a soils, geotechnical, or civil engineer experienced and knowledgeable in the practice of soils engineering; and an engineering geologist. Prior to the start of construction, the project owner shall assign at least one of each of the following California registered engineers to the project: a design engineer who is either a structural engineer or a civil engineer fully competent and proficient in the design of power plant structures and equipment supports; a mechanical engineer; and an electrical engineer. (California Business and Professions Code § 6704 et seq., and §§ 6730, 6731 and 6736 require state registration to practice as a civil engineer or structural engineer in California.) All transmission facilities (lines, switchyards, switching stations, and substations) are handled in the conditions of certification in the Transmission System Engineering section of this document. The tasks performed by the civil, mechanical, electrical, or design engineers may be divided between two or more engineers, as long as each engineer is responsible for a particular segment of the project (for example, proposed earthwork, civil structures, power plant structures, equipment support). No segment of the project shall have more than one responsible engineer. The transmission line may be the responsibility of a separate California registered electrical engineer. The project owner shall submit, to the CBO for review and approval, the names, qualifications, and registration numbers of all responsible engineers assigned to the project (2103 CBC, Appendix Chapter 1, § 104, Duties and Powers of Building Official).If any one of the designated responsible engineers is subsequently reassigned or replaced, the project owner shall submit the name, qualifications and registration number of the newly assigned responsible engineer to the CBO for review and approval. The project owner shall notify the CPM of the CBO's approval of the new engineer. A. The civil engineer shall: 1. Review the foundation investigations, geotechnical, or soils reports prepared by the soils engineer, the geotechnical engineer, or by a civil engineer experienced and knowledgeable in the practice of soils engineering;	At least 30 days (or within a project owner- and CBO-approved alternative time frame) prior to the start of rough grading, the project owner shall submit to the CBO for review and approval, resumes and registration numbers of the responsible civil engineer, soils (geotechnical) engineer and engineering geologist assigned to the project.	Y	30	prior to	Site Grading		8/5/2015 and 11/19/15	Completed		CBO approval 1/27/16
GEN	**5**	b	Y	B. The soils engineer, geotechnical engineer, or civil engineer experienced and knowledgeable in the practice of soils engineering, shall: 1. Review all the engineering geology reports; 2. Prepare the foundation investigations, geotechnical, or soils reports containing field exploration reports, laboratory tests, and engineering analysis detailing the nature and extent of the soils that could be susceptible to liquefaction, rapid settlement or collapse when saturated under load (2013 CBC, Chapter 18, § 1803, Soils Engineering Report) 3. Be present, as required, during site grading and earthwork to provide consultation and monitor compliance with requirements set forth in the 2013 CBC, Chapter 17, § 1704, Special Inspection (depending on the site conditions, this may be the responsibility of either the soils engineer, the engineering geologist, or both); and 4. Recommend field changes to the civil engineer and resident engineer. This engineer shall be authorized to halt earthwork and to require changes if site conditions are unsafe or do not conform to the predicted conditions used as the basis for design of earthwork or foundations (2013 CBC, Appendix Chapter 1, §115, Stop Work Orders).	Submit the name, qualifications and registration number of the newly assigned responsible engineer to the CBO for review and approval.	Y	30	prior to	As Needed				1	
GEO	**1**		Y	A Soils Engineering Report as required by Section 1803 of the California Building Code (CBC 2013), or its successor in effect at the time construction of the project were to commence, shall specifically include laboratory test data, associated geotechnical engineering analyses, and a thorough discussion of seismicity; liquefaction; dynamic compaction; compressible soils; corrosive soils; and tsunami. In accordance with CBC 2013, the report should also include recommendations for ground improvement and/or foundation systems necessary to mitigate these potential geologic hazards, if present.	The project owner shall include in the application for a grading permit a copy of the Soils Engineering Report which addresses the potential for strong seismic shaking; liquefaction; dynamic compaction; settlement due to compressible soils; corrosive soils, and tsunami, and a summary of how the results of the analyses were incorporated into the project foundation and grading plan design for review and comment by the delegate chief building official (CBO). A copy of the Soils Engineering Report, application for grading permit and any comments by the CBO are to be provided to the CPM at least 30 days prior to grading.	N	30	prior to	applying for grading permit	11/15	11/4/15 Report		1	Soils Report submitted 11-4-15
HAZ	1	a	Y	The project owner shall not use any hazardous materials not listed in ATTACHMENT A, below, or in greater quantities or strengths than those identified by chemical name in ATTACHMENT A, below, unless approved in advance by the Compliance Project Manager (CPM).	No later than 60 days prior to the start of the removal of the any above ground storage tanks or ancillary piping and the berms, the project owner shall provide to the CPM and to the Carlsbad Fire Department, a list of hazardous materials contained and used at the facility site. An updated list shall also be provided to the CPM and the Carlsbad Fire Department no later than 60 days prior to the start of construction, 60 days prior to the start of commissioning operations,	N	60	prior to	Start of Removal of AGTs, Piping, etc.	6/15	6/30/2015, 11/4/15	Completed		Approved by CPM letter 8-31-15

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HAZ	7		Y	Prior to commencing tank demolition, a site-specific Demolition and Construction Site Security Plan for the tank demolition and construction phases shall be prepared and made available to the CPM for review and approval. The Construction Security Plan shall include the following: 1. perimeter security consisting of fencing enclosing the demolition and construction areas; 2. security guards; 3. site access control consisting of a check-in procedure or tag system for demolition and construction personnel and visitors; 4. written standard procedures for employees, contractors, and vendors when encountering suspicious objects or packages on-site or off-site; 5. protocol for contacting law enforcement and the CPM in the event of suspicious activity or emergency; and 6. evacuation procedures.	At least 30 days prior to commencing tank demolition, the project owner shall notify the CPM and the Carlsbad Police Department that a site-specific Demolition and Construction Security Plan is available for review and comment. After receiving comments from the Carlsbad Police Department and the CPM, the project owner shall revise the Demolition and Construction Security Plan to reflect those comments and notify the CPM that the revised plan is available for review and approval.	Y	30	prior to	Demolition	10/15	11/10/2015	Completed		Start of Construction Approved 6/6/16.
HAZ	**3**		Y	The project owner shall develop and implement a Safety Management Plan for delivery of aqueous ammonia and other liquid hazardous materials by tanker truck. The plan shall include procedures, protective equipment requirements, training, and a checklist. It shall also include a section describing all measures to be implemented to prevent mixing of incompatible hazardous materials including provisions to maintain lockout control by a power plant employee not involved in the delivery or transfer operation. This plan shall be applicable during construction, commissioning, and operation of the power plant.	At least 30 days prior to the initial delivery of any liquid hazardous material to the facility for demolition, commissioning, or operations, the project owner shall provide a Safety Management Plan as described above to the City of Carlsbad Fire Department for review and comment and to the CPM for review and approval.	N	30	prior to	receipt of any hazardous material	November 1, 2017	9/26/2017	Completed		Submitted 9/26/17. Resubmittal 10/5/17 Final. CPM approved 10/9./17
HAZ	**8**	a	Y	The project owner shall also prepare a site-specific security plan for the commissioning and operational phases that will be available to the Carlsbad Police Department for review and comment and to the CPM for review and approval. The project owner shall implement site security measures that address physical site security and hazardous materials storage. The level of security to be implemented shall not be less than that described below (as per NERC 2002). The Operation Security Plan shall include the following: 1. permanent full perimeter fence or wall, at least eight feet high and topped with barbed wire or the equivalent (and with slats or other methods to restrict visibility if a fence is selected); 2. main entrance security gate, either hand operated or motorized; 3. evacuation procedures; 4. protocol for contacting law enforcement and the CPM in the event of suspicious activity or emergency; 5. written standard procedures for employees, contractors, and vendors when encountering suspicious objects or packages on-site or off-site; A. a statement (refer to sample, ATTACHMENT B), signed by the project owner certifying that background investigations have been conducted on all project personnel. Background investigations shall be restricted to determine the accuracy of employee identity and employment history, and shall be conducted in accordance with state and federal laws regarding security and privacy; B. a statement(s) (refer to sample, ATTACHMENT C), signed by the contractor or authorized representative(s) for any permanent contractors or other technical contractors (as determined by the CPM after consultation with the project owner), that are present at any time on the site to repair, maintain, investigate, or conduct any other technical duties involving critical components (as determined by the CPM after consultation with the project owner) certifying that background investigations have been conducted on contractors who visit the project site; 6. site access controls for employees, contractors, vendors, and visitors;	At least 30 days prior to the initial receipt of hazardous materials on-site for commissioning or operations, the project owner shall notify the Carlsbad Police Department and the CPM that a site-specific operations site security plan is available for review. After receiving comments from the Carlsbad Police Department and the CPM, the project owner shall revise the Operations Site Security Plan to reflect those comments and notify the CPM that the revised plan is available for review and approval.	N	30	prior to	receipt of any hazardous material	November 1, 2017	9/22/17	Completed		Noticed CPM and Local Police Department 9/22/17. CPM approved 10/16/17.
HAZ	**10**			The project owner shall not allow any fuel gas pipe cleaning activities on site at any power unit, either before placing the pipe into service or at any time during the lifetime of the facility, that involve "flammable gas blows" where natural (or flammable) gas is used to blow out debris from piping and then vented to the atmosphere. Instead, an inherently	At least 30 days before any fuel gas pipe cleaning activities begin at any unit, the project owner shall submit a copy of the Fuel Gas Pipe Cleaning Work Plan (as described in NFPA 56, section 4.3.1) which shall indicate the method of cleaning to be	N	30	prior to	fuel gas pipe cleaning activities	February 26, 2018	2/16/2018	Completed		CPM approved 3/14/18
HAZ	**8**	c	Y		In the annual compliance report, the project owner shall include a statement that all current project employee and appropriate contractor background investigations have been performed, and that updated certification statements have been appended to the operations security plan. In the annual compliance report, the project owner shall include a statement that the operations security plan includes all current hazardous materials transport vendor certifications for security plans and employee background investigations.	N	N/A	Annual	Annual Compliance Report	February 28, 2018				
HAZ	**4**		Y	The aqueous ammonia storage facility shall be designed to either the ASME Pressure Vessel Code and ANSI K61.6 or to API 620. In either case, the storage tanks shall be protected by a secondary containment basin capable of holding 125 percent of the storage volume or the storage volume plus the volume associated with 24 hours of rain, assuming the 25-year storm. The final design drawings and specifications for the ammonia storage tanks and secondary containment basins shall be submitted to the CPM.	At least 60 days prior to delivery of aqueous ammonia to the facility, the project owner shall submit final design drawings and specifications for the ammonia storage tank and secondary containment basin to the City of Carlsbad Fire Department for review and comment and to the CPM for review and approval.	N	60	prior to	Delivery of aqueous ammonia to the site	March 9, 2018	12/14/2017	Completed		Submitted to the Carlsbad Fire Department
HAZ	**5**		Y	The project owner shall direct all vendors delivering aqueous ammonia to the site to use only tanker truck transport vehicles which meet or exceed the specifications of DOT Code MC-307.	At least 30 days prior to receipt of aqueous ammonia on-site, the project owner shall submit copies of the notification letter to supply vendors indicating the transport vehicle specifications to the CPM for review and approval.	N	30	prior to	Delivery of aqueous ammonia to the site	April 8, 2018	3/22/2018	Completed		
HAZ	**2**	a		The project owner shall concurrently provide a Business Plan and a Risk Management Plan (RMP) prepared pursuant to the California Accidental Release Program (CalARP) to the San Diego County Department of Environmental Health, Hazardous Materials Division (DEH HMD) and the CPM for review. After receiving comments from the San Diego County DEH HMD and the CPM, the project owner shall reflect all recommendations in the final documents. Copies of the final Business Plan and RMP shall then be provided to the San Diego County DEH HMD and the Carlsbad Fire Department for information and to the CPM for approval.	At least 30 days prior to the initial receipt of any hazardous material on the site for tank demolition, commissioning or operations, the project owner shall provide a copy of a final Business Plan or updated business plan to the CPM for approval and to the San Diego County DEH HMD and the Carlsbad Fire Department for information.	N	30	prior to	receipt of any hazardous material	April 8, 2018	8/6/15; 3/31/17; 4/19/17; 10/26/18	Completed		CECP final HMBP submitted in CERS 10/23/18
HAZ	**2**	b	Y		At least 30 days prior to delivery of aqueous ammonia to the site, the project owner shall provide the final RMP to the DEH HMD and the Carlsbad Fire Department for information and to the CPM for approval.	N	30	prior to	delivery of aqueous ammonia to the site	April 8, 2018	12/13/2017; 5/25/18	Completed		Submitted Draft to the CUPA 12/13/17; Final Submitted 5/25/18

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HAZ	**6**		Y	The project owner shall direct all vendors delivering any hazardous material to the site to use only the route approved by the CPM (I-5 to Cannon Road to Avenida Encinas to the project site). The project owner shall obtain approval of the CPM if an alternate route is desired.	At least 60 days prior to receipt of any hazardous materials on-site for tank demolition, construction, or operations, the project owner shall submit copies of the required transportation route limitation direction to the CPM for review and approval.	N	60	prior to	receipt of any hazardous material		10/30/2015	Completed		Approved by CPM letter 8-31-15. Construction Phase Approved 11-3-15; Start of construction approved 6/6/16
HAZ	**9**		Y	If the project owner dedicates an easement for the Coastal Rail Trail, it shall be located within the boundaries of the overall Encina Power Station Precise Development Plan area in a location mutually agreed upon with the City of Carlsbad and located west of the north/south AT&SF/North County Transit District Rail Corridor. In no event shall the project owner grant or dedicate an easement for the Coastal Rail Trail east of the Rail Corridor on the CECP site.	Not later than ten days after drafting an agreement, the project owner shall submit to the CPM for review and approval the instrument of easement dedication showing that the location mutually agreed upon with the City of Carlsbad is west of the north/south AT&SF/North County Transit District Rail Corridor.	N	10	after	instrument of easement dedication		5/23/2016	Completed		See LAND-1. CPM approved 8/2/16.
HAZ	**1**	b	Y		and in the Annual Compliance Report.	N	N/A	Annual	Annual Compliance Report					
HAZ	**8**	b	Y	7. a statement(s) (refer to sample, ATTACHMENT D), signed by the owners or authorized representative of hazardous materials transport vendors, certifying that they have prepared and implemented security plans in compliance with 49 CFR 172.880, and that they have conducted employee background investigations in accordance with 49 CFR Part 1572, subparts A and B; 8. closed circuit TV (CCTV) monitoring system, recordable, and viewable in the power plant control room and security station (if separate from the control room) with cameras able to pan, tilt, and zoom, and which have low-light capability and are able to view 100 percent of the perimeter fence, the ammonia storage tank, the outside entrance to the control room, and the front gate; and 9. additional measures to ensure adequate perimeter security consisting of either: A. security guard(s) present 24 hours per day, 7 days per week; or B. power plant personnel on site 24 hours per day, 7 days per week, and perimeter breach detectors or on-site motion detectors. The project owner shall fully implement the security plans and obtain CPM approval of any substantive modifications to those security plans. The CPM may authorize modifications to these measures, or may require additional measures such as protective barriers for critical power plant components— transformers, gas lines, and compressors—depending upon circumstances unique to the facility or in response to industry-related standards, security concerns, or additional guidance provided by the U.S. Department of Homeland Security, the U.S. Department of Energy, or the North American Electrical Reliability Council after consultation with both appropriate law enforcement agencies and the project owner.		N					10/17/2017	Completed		
LAND	1		Y	The project owner shall dedicate an easement for the Coastal Rail Trail within the boundaries of the overall Encina Power Station Precise Development Plan area in a location mutually agreed upon with the City of Carlsbad located west of the north/south AT&SF/North County Transit District Rail Corridor.	The project owner shall provide proof to the compliance project manager of easement dedication to the City of Carlsbad prior to the start of construction. To meet this requirement, an indeterminate or blanket easement may be granted, containing provisions that it will be quitclaimed upon later dedication of a specific easement when specific redevelopment plans for the area are determined. Any easement granted to the city of Carlsbad must be subservient to and have inferior rights against later granted easements to the project owner for access or utility connections through the area west of the north/south AT&SF/North County Transit District Rail Corridor necessary for operation of the amended CECP. Within 30 days of recording the specific trail easement, the project owner shall provide a copy of the easement to the CPM.	Y	30	within	recording of easement	4-31-16	5/23/2016	Completed	1	Start of Construction Approved 6/6/16. Pending recording of actual final location. Record date 8-23-16
MECH	**1**		Y	The project owner shall submit, for CBO design review and approval, the proposed final design, specifications and calculations for each plant major piping and plumbing system listed in FACILITY DESIGN Table 2, Condition of Certification GEN-2, above. Physical layout drawings and drawings not related to code compliance and life safety need not be submitted. The submittal shall also include the applicable quality assurance and quality control procedures. Upon completion of construction of any such major piping or plumbing system, the project owner shall request the CBO's inspection approval of that construction (2013 CBC, Appendix Chapter 1, § 107, Submittal Documents; § 110, Inspections; § 105, Permits; 2013 California Plumbing Code, § 301, Materials). The responsible mechanical engineer shall stamp and sign all plans, drawings, and calculations for the major piping and plumbing systems, subject to CBO design review and approval, and submit a signed statement to the CBO when the proposed piping and plumbing systems have been designed, fabricated, and installed in accordance with all of the applicable laws, ordinances, regulations and industry standards (2103 CBC, Appendix Chapter 1, § 107.3.4, Design Professional in Responsible Charge), which may include, but are not limited to: • American National Standards Institute (ANSI) B31.1 (Power Piping Code); • ANSI B31.2 (Fuel Gas Piping Code); • ANSI B31.3 (Chemical Plant and Petroleum Refinery Piping Code); • ANSI B31.8 (Gas Transmission and Distribution Piping Code); • Title 24, California Code of Regulations, Part 5 (California Plumbing Code); • Title 24, California Code of Regulations, Part 6 (California Energy Code, for building energy conservation systems and temperature control and ventilation systems); • Title 24, California Code of Regulations, Part 2 (California Building Code); • City of Carlsbad Municipal Ordinance, Title 18, Building Codes and Standards. The CBO may deputize inspectors to carry out the functions of the code enforcement agency (2013 CBC, Appendix Chapter 1, §103.3, Deputies).	At least 30 days (or within a project owner- and CBO-approved alternative time frame) prior to the start of any increment of major piping or plumbing construction listed in FACILITY DESIGN Table 2, Condition of Certification GEN-2, above, the project owner shall submit to the CBO for design review and approval the final plans, specifications, and calculations, including a copy of the signed and stamped statement from the responsible mechanical engineer certifying compliance with applicable LORS, and shall send the CPM a copy of the transmittal letter in the next monthly compliance report. The project owner shall transmit to the CPM, in the monthly compliance report following completion of any inspection, a copy of the transmittal letter conveying the CBO's inspection approvals.	N	30	prior to	start of any increment of major piping or plumbing construction					

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MECH	**2**		Y	For all pressure vessels installed in the plant, the project owner shall submit to the CBO and California Occupational Safety and Health Administration (Cal-OSHA), prior to operation, the code certification papers and other documents required by applicable LORS. Upon completion of the installation of any pressure vessel, the project owner shall request the appropriate CBO and/or Cal-OSHA inspection of that installation (2013 CBC, Appendix Chapter 1, § 110, Inspection Requests). The project owner shall: 1. Ensure that all boilers and fired and unfired pressure vessels are designed, fabricated, and installed in accordance with the appropriate section of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, or other applicable code. Vendor certification, with identification of applicable code, shall be submitted for prefabricated vessels and tanks; and 2. Have the responsible design engineer submit a statement to the CBO that the proposed final design plans, specifications, and calculations conform to all of the requirements set forth in the appropriate ASME Boiler and Pressure Vessel Code or other applicable codes.	At least 30 days (or within a project owner- and CBO-approved alternative time frame) prior to the start of on-site fabrication or installation of any pressure vessel, the project owner shall submit to the CBO for design review and approval, the above-listed documents, including a copy of the signed and stamped engineer's certification, with a copy of the transmittal letter to the CPM. The project owner shall transmit to the CPM, in the monthly compliance report following completion of any inspection, a copy of the transmittal letter conveying the CBO's and/or Cal/OSHA inspection approvals.	N	30	prior to	start of onsite fabrication/installation of pressure vessel				1	
MECH	**3**		Y	The project owner shall submit to the CBO for design review and approval the design plans, specifications, calculations, and quality control procedures for any heating, ventilating, air conditioning (HVAC), or refrigeration system. Packaged HVAC systems, where used, shall be identified with the appropriate manufacturer's data sheets. The project owner shall design and install all HVAC and refrigeration systems within buildings and related structures in accordance with the CBC and other applicable codes. Upon completion of any increment of construction, the project owner shall request the CBO's inspection and approval of that construction. The final plans, specifications and calculations shall include approved criteria, assumptions, and methods used to develop the design. In addition, the responsible mechanical engineer shall sign and stamp all plans, drawings and calculations and submit a signed statement to the CBO that the proposed final design plans, specifications and calculations conform with the applicable LORS (2013 CBC, Appendix Chapter 1, § 110.3.7, Energy Efficiency Inspections; § 107.3.4, Design Professionals in Responsible Charge).	At least 30 days (or within a project owner- and CBO-approved alternative time frame) prior to the start of construction of any HVAC or refrigeration system, the project owner shall submit to the CBO the required HVAC and refrigeration calculations, plans, and specifications, including a copy of the signed and stamped statement from the responsible mechanical engineer certifying compliance with the CBC and other applicable codes, with a copy of the transmittal letter to the CPM.	N	30	prior to	Equipment Construction		8/11/17; 12/20/17	Completed		8/11/17 submittal was for Admin & Warehouse, and Various PDCs.
NOISE	1		Y	At least 15 days prior to the start of any demolition activities associated with the amended CECP, the project owner shall notify the city of Carlsbad and all residents within one-half mile of the site, by mail or other effective means, of the commencement of project demolition and construction. At the same time, the project owner shall establish a telephone number for use by the public to report any undesirable noise conditions associated with the demolition, construction, and operation of the amended CECP and include that telephone number in the above notice. If the telephone is not staffed 24 hours per day, the project owner shall include an automatic answering feature, with date and time stamp recording, to answer calls when the phone is unattended. This telephone number shall be posted at the project site during construction in a manner visible to passersby. This telephone number shall be maintained until the project has been operational for at least one year, and all subsequent demolition activities at the Encina Power Station have been completed.	Prior to the start of any demolition activities, the project owner shall transmit to the Compliance Project Manager (CPM) a statement, signed by the project owner's project manager, stating that the above notification has been performed, describing the method of that notification, verifying that the telephone number has been established and posted at the site, and giving that telephone number.	Y	15	prior to	Start of Demolition Activities	November 12, 2014	11/14/2014; 8/15/15; 1/7/16	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15. Approved by Start of Berm Demolition 1/15/16
NOISE	**5**		Y	Following the project's first achieving a sustained output of 80 percent or greater of rated capacity, the project owner shall conduct an occupational noise survey to identify the noise hazardous areas in the facility. The survey shall be conducted by a qualified person in accordance with the provisions of Title 8, California Code of Regulations sections 5095–5099 and Title 29, Code of Federal Regulations section 1910.95. The survey results shall be used to determine the magnitude of employee noise exposure. The project owner shall prepare a report of the survey results and, if necessary, identify proposed mitigation measures that will be employed to comply with the applicable California and federal regulations.	Within 30 days after completing the survey, the project owner shall submit the noise survey report to the CPM. The project owner shall make the report available to OSHA and Cal/OSHA upon request.	N	30	after	Complete noise survey	October 29, 2018				
NOISE	**4**	a	Y	There shall be no operation of the power plant between midnight and 6:00 a.m. except to the extent reasonably required for reliability-related purposes or as otherwise required by the ISO Tariff. The project design and implementation shall include appropriate noise mitigation measures adequate to ensure that operation of the project will not cause noise levels due solely to plant operation to exceed an average of 53 dBA Leq measured at monitoring locations M2 or M7. No new pure-tone components shall be caused by the project. No single piece of equipment shall be allowed to stand out as a source of noise that draws project-related noise complaints.	The surveys shall take place within 30 days of the project's first achieving a sustained output of 80 percent or greater of rated capacity with all turbine generators operating.	N	30	after	Project's first achieving a sustained output of 80 percent or greater of rated capacity	October 29, 2018				
NOISE	**9**	a	Y	When concrete work requires continuous pouring that may extend beyond the times specified in Condition of Certification NOISE-6, the project owner shall notify the City of Carlsbad and all residences in the vicinity of the project site of the commencement date and the duration of concrete pouring activities. The average Leq noise levels from these activities shall not exceed the hourly average nighttime ambient Leq levels at M2, M5 and M7, by more than more than five dBA, or alternatively, this activity shall be performed in a manner to ensure excessive noise is prohibited and the potential for noise complaints is reduced to the extent feasible.	At least ten days prior to concrete pouring activities that are anticipated to extend beyond the times specified in Condition of Certification NOISE-6, the project owner shall submit a statement to the CPM, specifying the expected start date, time of night and the number of nights for which activities will occur, the approximate distance of activities to receptor locations M2, M5 and M7, and the expected sound levels at these receptors, and requesting an exemption to perform these activities outside of the above timeframe. In this statement, the project owner shall either indicate that the expected sound levels from this activity will not exceed the nighttime noise limits specified above, or state that it will perform this activity in a manner to ensure excessive noise is prohibited and the potential for noise complaints is reduced to the extent feasible.	N	10	prior to	Concrete Pouring	As Needed	3/23/17; 4/3/17; 4/27/17; 5/23/17; 6/12/17; 8/14/17		1	

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NOISE	**9**	c	Y		At least ten days prior to concrete pouring activities, the project owner shall notify the city of Carlsbad and the residents within one mile of this work. The notification may be in the form of letters, or other effective means as approved by the CPM. In this notification, the project owner shall state that it will perform this activity in a manner to ensure excessive noise is prohibited, and include a telephone number that will be staffed throughout this activity for use by the public to report any undesirable noise conditions associated with these activities.	N	10	prior to	concrete pouring activities	As Needed	3/23/17; 4/3/17; 4/27/17; 6/8/17; 6/29/17; 8/21/17			
NOISE	**4**	b	Y		Within 15 days after completing the surveys, the project owner shall submit a summary report of the surveys to the CPM. Included in the report shall be a description of any additional mitigation measures necessary to achieve compliance with the above-listed noise limit and a schedule, subject to CPM approval, for implementing these measures. When these measures are in place, the project owner shall repeat the noise survey(s).	N	15	after	Completion of noise surveys	TBD				
NOISE	**2**		Y	Throughout the demolition of above-ground fuel oil storage tanks 1, 2, 4, 5, 6, and 7 (ASTs 1, 2, 4, 5, 6, and 7), construction and operation of the amended CECP, and demolition of the Encina Power Station the project owner shall document, investigate, evaluate, and attempt to resolve all project-related noise complaints. The project owner or authorized agent shall: • Use the Noise Complaint Resolution Form (below), or a functionally equivalent procedure acceptable to the CPM, to document and respond to each noise complaint; • Attempt to contact the person(s) making the noise complaint within 24 hours (within 12 hours if the complaint is related to nighttime concrete pour); • Conduct an investigation to determine the source of noise related to the complaint; • Take all feasible measures to reduce the noise at its source if the noise is project related; and • Submit a report documenting the complaint and the actions taken. The report shall include: a complaint summary, including final results of noise reduction efforts and, if obtainable, a signed statement by the complainant stating that the noise problem is resolved to the complainant's satisfaction.	Within five days of receiving a noise complaint, the project owner shall file a copy of the Noise Complaint Resolution Form with the CPM documenting the resolution of the complaint. If mitigation is required to resolve a complaint and the complaint is not resolved within a three-day period (within 24 hours for noise complaints related to nighttime concrete pour), the project owner shall submit an updated Noise Complaint Resolution Form when the mitigation is implemented.	N	5	after	Noise Complaint					
NOISE	**9**	d	Y		The project owner shall submit a copy of this notification to the CPM prior to the start of this work.	N	10	prior to	concrete pouring activities		3/23/17; 4/3/17; 4/27/17; 5/23/17; 6/12/17; 8/14/17	Completed		CPM Approved each notice.
NOISE	**4**	c	Y	The measurement of power plant noise for the purposes of demonstrating compliance with this Condition of Certification may alternatively be made at a location, acceptable to the CPM, closer to the plant (e.g., 400 feet from the plant boundary) and this measured level then mathematically extrapolated to determine the plant noise contribution at the affected residence. The character of the plant noise shall be evaluated at the affected residential locations to determine the presence of pure tones or other dominant sources of plant noise. A. When the project first achieves a sustained output of 80 percent or greater of rated capacity, the project owner shall conduct community noise surveys at monitoring locations M2 and M7 or at closer locations acceptable to the CPM. These surveys shall be performed during power plant operation and shall also include measurement of one-third octave band sound pressure levels to determine whether new pure-tone noise components have been caused by the project. B. If the results from the noise surveys indicate that the power plant average noise level (Leq) at M2 or M7 exceeds the above value, mitigation measures shall be implemented to reduce noise to a level of compliance with this limit. C. If the results from the noise surveys indicate that pure tones are present, mitigation measures shall be implemented to eliminate the pure tones.	Within 15 days of completion of the new survey(s), the project owner shall submit to the CPM a summary report of the new noise survey(s), performed as described above and showing compliance with this condition.	N	15	after	Completion of new noise surveys					
NOISE	**7**		N	[Deleted]	N/A	N								
NOISE	**8**	a	Y	The project owner shall perform pile driving in a manner to reduce the potential for any project-related noise or vibration complaints. The project owner shall notify the city of Carlsbad and the residents in the vicinity of pile driving prior to start of this activity. Vibrations from pile driving shall be limited to a peak particle velocity of 0.2 inches per second at receptors M2, M5, and M7.	At least 15 days prior to first pile driving, the project owner shall submit to the CPM a description of the pile driving technique to be employed, including calculations showing its projected noise impacts at monitoring locations M2, M5 and M7.	N	15	prior to	first pile driving				NA	Pile Driving Not Planned For Use
NOISE	**8**	b	Y		At least ten days prior to first production pile driving, the project owner shall notify the City of Carlsbad and the residents within one mile of the pile driving. The notification may be in the form of letters, or other effective means, as approved by the CPM. In this notification, the project owner shall state that it will perform this activity in a manner to reduce the potential for any project-related noise and vibration complaints. The project owner shall submit a copy of this notification to the CPM prior to the start of pile driving.	N	10	prior to	first production pile driving				NA	Pile Driving Not Planned For Use
NOISE	**9**	b	Y		The project owner shall not perform this nighttime work until the CPM has granted the request for exemption. After the above exemption is granted by the CPM and before the start of this activity, the project owner shall notify the city of Carlsbad of this approval.	N	N/A	after exemption granted	CPM grants request for exemption					
NOISE	3		Y	The project owner shall submit to the CPM for review and approval a noise control program and a statement, signed by the project owner's project manager, verifying that the noise control program will be implemented throughout the demolition of ASTs 5, 6, and 7, and construction and demolition activities associated with ~~of~~ the amended CECP. The noise control program shall be used to reduce employee exposure to high noise levels during demolition and construction in accordance with Title 8, California Code of Regulations, sections 5095-5099, and Title 29, Code of Federal Regulations, section 1910.95	At least 30 days prior to the start of any demolition activities, the project owner shall submit to the CPM the noise control program and the project owner's project manager's signed statement. The project owner shall make the program available to OSHA and Cal/OSHA upon request.	Y	30	prior to	Demolition Activities		9/17/2014, 8/7/15, 12/22/15	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15.

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NOISE	6		Y	Noisy construction work relating to any project features shall be restricted to the times of day delineated below: Weekdays 7:00 a.m. to 6:00 p.m. Saturdays 8:00 a.m. to 6:00 p.m. Haul trucks and other engine-powered equipment shall be equipped with mufflers that meet all applicable regulations. Haul trucks shall be operated in accordance with posted speed limits. Truck engine exhaust brake use shall be limited to emergencies. For purposes of this condition, "noisy construction work" shall be defined as any project-related work that draws a noise complaint caused by the construction or demolition activities associated with the CECP, as opposed to another source, as verified by the CPM, pursuant to NOISE-2.	Prior to the start of the demolition of ASTs 1, 2, and 4 the project owner shall transmit to the CPM a statement acknowledging that the above restrictions will be observed throughout the demolition of ASTs 1, 2, and 4, the construction of the amended CECP power plant, and the subsequent demolition of the Encina Power Station.	Y	N/A	prior to	Demolition of ASTs 1, 2, and 4		8/25/2014	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15.
PAL	**7**		Y	The project owner shall ensure preparation of a Paleontological Resources Report (PRR) by the designated PRS. The PRR shall be prepared following completion of ground-disturbing activities. The PRR shall include an analysis of the collected fossil materials and related information, and shall be submitted to the CPM for approval. The report shall include, but not be limited to, a description and inventory of recovered fossil materials; a map showing the location of paleontological resources encountered; and the PRS' description of sensitivity and significance of those resources; and indicate if and how fossil material was curated in accordance with PAL-8.	Within 90 days after completion of ground-disturbing activities, including landscaping, the project owner shall submit the PRR under confidential cover to the CPM.	N	90	after	Construction	November 20, 2018			1	
PAL	**8**		Y		Within 60 days after the submittal of the PRR, the project owner shall submit documentation to the CPM showing fees have been paid for curation and the owner relinquishes control and ownership of all fossil material.	N	60	after	Submittal of PRR	TBD				
PAL	**1**	c	Y	As determined by the CPM, the PRS shall meet the minimum qualifications for a qualified professional paleontologist as defined in the Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources by the Society of Vertebrate Paleontology (SVP 2010). The experience of the PRS shall include the following: 1. Institutional affiliations, appropriate credentials, and college degree; 2. Ability to recognize and collect fossils in the field; 3. Local geological and biostratigraphic expertise; 4. Proficiency in identifying vertebrate and invertebrate fossils; and 5. At least three years of paleontological resource mitigation and field experience in California and at least one year of experience leading paleontological resource mitigation and field activities.	If additional PRMs are obtained during the project, the PRS shall provide additional letters and resumes to the CPM. The letter shall be provided to the CPM for approval no later than one week prior to the monitor's beginning on-site duties.	N	1 week	prior to	Additional bio, cultural, paleo staff		6/1/2018			Additional Resumes Submitted 6/1/18
PAL	**1**	d	Y	The project owner shall ensure that the PRS obtains qualified paleontological resource monitors (PRMs) to monitor as they deem necessary on the project. PRMs shall have the equivalent or combination of the following qualifications approved by the CPM: • BS or BA degree in geology or paleontology and one year of experience monitoring in California; or • AS or AA in geology, paleontology, or biology and four years' experience monitoring in California; or • Enrollment in upper division classes pursuing a degree in the fields of geology or paleontology and two years of monitoring experience in California. The project owner shall keep resumes on file for qualified paleontological resources monitors (PRMs). If a PRM is replaced, the resume of the replacement PRM shall also be provided to the CPM for review and approval.	Prior to any change of the PRS, the project owner shall submit the resume of the proposed new PRS to the CPM for review and approval.	N	N/A	prior to	Termination of DB, CRS, PRS	As Needed	6/1/2018			CPM approved 6/26/18
PAL	**2**	b	Y	If construction of the project proceeds in phases, maps and drawings may be submitted prior to the start of each phase. A letter identifying the proposed schedule of each project phase shall be provided to the PRS and CPM. Before work commences on affected phases, the project owner shall notify the PRS and CPM of any construction phase scheduling changes.	2) If there are changes to the footprint of the project, revised maps and drawings shall be provided to the PRS and CPM at least 15 days prior to the start of ground disturbance.	N	15	prior to	As Needed				1	As Needed
PAL	**5**			No worker shall excavate or perform any ground disturbance activity prior to receiving CPM-approved WEAP training, prepared in accordance with the requirements of PAL-4 unless specifically approved by the CPM. Prior to site mobilization or any ground disturbance the following workers shall be WEAP trained by the PRS in-person: project managers, construction supervisors, foremen, and all general workers involved with or who operate ground-disturbing equipment or tools. Following this initial training, the WEAP certification of completion shall be used to document who has received the required training. Workers subsequently receiving training may be trained using the materials and procedures required in PAL-4.	In the Monthly Compliance Report (MCR), the project owner shall provide copies of the WEAP certification of completion forms with the names of those trained and the trainer or type of training (in-person and/or video) offered that month. An example of a suitable WEAP certification complete form is provided below. The MCR shall also include a running total of all persons who have completed the training to date.	N	N/A	Monthly	Monthly Compliance Report					
PAL	**2**	c	Y	At a minimum, the project owner shall ensure that the PRS or PRM consults weekly with the project superintendent or construction field manager to confirm area(s) to be worked the following week, and until ground disturbance is completed.	(3) If there are changes to the scheduling of the construction phases, the project owner shall submit a letter to the CPM within 5 days of identifying the changes.	N	5	after	Schedule changes					

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PAL	**6**	a	Y	The project owner shall ensure that the PRS and PRM(s) monitor, consistent with the PRMMP, all construction-related grading, excavation, trenching, and augering in areas where potential fossil-bearing materials have been identified, both at the site and along any constructed linear facilities associated with the project. In the event that the PRS determines full-time monitoring is not necessary in locations that were identified as potentially fossil-bearing in the PRMMP, the project owner shall notify and seek the concurrence of the CPM. The project owner shall ensure that the PRS and PRM(s) have the authority to **stop** or redirect construction if paleontological resources are encountered. The project owner shall ensure that there is no interference with monitoring activities unless directed by the PRS. Monitoring activities shall be conducted as follows: 1. Any change of monitoring from the accepted schedule in the PRMMP shall be proposed in a letter or email from the PRS and the project owner to the CPM **for review and approval** prior to the change in monitoring. The letter or email shall include the justification for the change in monitoring and be submitted to the CPM for review and approval. 2. The project owner shall ensure that the PRM(s) keep a daily monitoring log of paleontological resource activities. The PRS may informally discuss paleontological resource monitoring and mitigation activities with the CPM at any time.	The project owner shall ensure that the PRS submits the summary of monitoring and paleontological activities in the MCR.	N	N/A	Monthly	Monthly Compliance Report					
PAL	**6**	b	Y	3. The project owner shall ensure that the PRS notifies the CPM within 24 hours of the occurrence of any incidents of non-compliance with any paleontological resources conditions of certification. The PRS shall recommend corrective action to resolve the issues or achieve compliance with the conditions of certification. 4. For any significant paleontological resources encountered, either the project owner or the PRS shall notify the CPM within 24 hours, or Monday morning in the case of a weekend event, when construction has been stopped because of a paleontological find. The project owner shall ensure that the PRS prepares a summary of monitoring and other paleontological activities that will be included in each MCR. The summary will include the name(s) of PRS or PRM(s) active during the month, general descriptions of training and monitored construction activities, and general locations of excavations, grading, and other activities. A section of the report shall include the geologic units or subunits encountered, descriptions of samplings within each unit, and a list of identified fossils. A final section of the report will address any issues or concerns about the project relating to paleontologic monitoring, including any incidents of non-compliance or any changes to the monitoring plan that have been approved by the CPM. If no monitoring took place during the month, the report shall include an explanation in the summary as to why monitoring was not conducted.	When feasible, the CPM shall be notified ten days in advance of any proposed changes in monitoring different from that identified in the PRMMP. If there is any unforeseen change in monitoring, the notice shall be given as soon as possible prior to implementation of the change.	N	10	prior to	Change in monitoring					
PAL	1	a	Y	The project owner shall provide the compliance project manager (CPM) with the résumé and qualifications of its paleontological resource specialist (PRS) for review and approval. If the approved PRS is replaced prior to completion of project mitigation and submittal of the paleontological resources report (PRR), the project owner shall obtain CPM approval of the replacement PRS.	At least 60 days prior to the start of ground disturbance, the project owner shall submit a resume and statement of availability of its designated PRS for on-site work to the CPM for approval.	Y	60	prior to	Ground Disturbance		7/29/2014	Completed		Approved by Start of Construction Letter from CPM, received on 12/9/14
PAL	1	b	Y	The PRS resume shall include the names and phone numbers of references. The résumé shall also demonstrate to the satisfaction of the CPM the appropriate education and experience to accomplish the required paleontological resource tasks.	At least 20 days prior to ground disturbance, the PRS or project owner shall provide a letter with resumes naming anticipated PRMs for the project. The letter shall state that the identified PRMs meet the minimum qualifications for paleontological resource monitoring as required by this condition of certification.	Y	20	prior to	Ground Disturbance		7/29/2014	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15.
PAL	2	a	Y	The project owner shall provide to the PRS and the CPM, for approval, maps and drawings showing the footprint of the power plant, construction lay down areas, and all related facilities. Maps shall identify all areas of the project where ground disturbance is anticipated. If the PRS requests enlargements or strip maps for linear facility routes, the project owner shall provide copies to the PRS and CPM. The site grading plan and **the** plan and profile drawings for the utility lines would be acceptable for this purpose. The plan drawings should show the location, depth, and extent of all ground disturbances and be at a scale between 1 inch = 40 feet and 1 inch = 100 feet. If the footprint of the project or its linear facilities change, the project owner shall provide maps and drawings reflecting those changes to the PRS and CPM.	(1) At least 30 days prior to the start of ground disturbance, the project owner shall provide the maps and drawings to the PRS and CPM.	Y	30	prior to	Ground Disturbance		9/24/2014	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15.

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PAL	3	a	Y	The project owner shall ensure that the PRS prepares a Paleontological Resources Monitoring and Mitigation Plan (PRMMP) and submits the PRMMP to the CPM for review and approval. Approval of the PRMMP by the CPM shall occur prior to any ground disturbance. The PRMMP shall function as the formal guide for monitoring, collecting, and sampling activities, and may be modified with CPM approval. The PRMMP shall be used as the basis of discussion when on-site decisions or changes are proposed. Copies of the PRMMP shall include all updates and reside with the PRS, each PRM, the project owner's on-site manager, and the CPM. The PRMMP shall be developed in accordance with the guidelines of the Society of Vertebrate Paleontology (SVP, 2010) and shall include, but not be limited, to the following: 1. Assurance that the performance and sequence of project-related tasks, such as any literature searches, pre-construction surveys, worker environmental training, fieldwork, flagging or staking, construction monitoring, mapping and data recovery, fossil preparation and collection, identification and inventory, preparation of final reports, and transmittal of materials for curation will be performed according to PRMMP procedures; 2. Identification of the person(s) expected to assist with each of the tasks identified within the PRMMP and certification; 3. A thorough discussion of the anticipated geologic units expected to be encountered, the location and depth of the units relative to the project when known, and the known sensitivity of those units based on the occurrence of fossils either in that unit or in correlative units; 4. An explanation of why sampling is needed, a description of the sampling methodology, and how much sampling is expected to take place in which geologic units. Include descriptions of different sampling procedures that shall be used for fine-grained and coarse-grained units; 5. A discussion of the locations of where the monitoring of project construction activities is deemed necessary, and a proposed plan for monitoring and sampling at these locations; 6. A discussion of procedures to be followed: (a) in the event of a significant fossil discovery, (b) stopping construction, (c)resuming construction, and (d) how notifications	At least 30 days prior to ground disturbance, the project owner shall provide a copy of the PRMMP to the CPM. Approval of the PRMMP by the CPM shall occur prior to any ground disturbance. The PRMMP shall include an affidavit of authorship by the PRS, and acceptance of the PRMMP by the project owner evidenced by a signature.	Y	30	prior to	Ground Disturbance		9/26/2014	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15.
PAL	4	a	Y	Prior to ground disturbance the project owner and the PRS shall prepare a CPM-approved Worker Environmental Awareness Program (WEAP). The WEAP shall address the possibility of encountering paleontological resources in the field, the sensitivity and importance of these resources, and legal obligations to preserve and protect those resources. The purpose of the WEAP is to train project workers to recognize paleontologic resources and identify procedures they should follow to ensure there are no impacts to sensitive paleontologic resources. The WEAP shall include: 1. A discussion of applicable laws and penalties under the law; 2. Good quality photographs or physical examples of vertebrate fossils for project sites containing units of high paleontologic sensitivity;	At least 30 days prior to ground disturbance, the project owner shall submit to the CPM for review and comment the draft WEAP, including the brochure and sticker. The submittal shall also include a draft training script and, if the project owner is planning to use a multimedia presentation for training, a copy of the training presentation with the set of reporting procedures for workers to follow.	Y	30	prior to	Ground Disturbance		8/25/2014	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15.
PAL	4	b	Y	3. Information that the PRS or PRM has the authority to stop-or redirect construction in the event of a discovery or unanticipated impact to a paleontological resource; 4. Instruction that employees are to stop-or redirect work in the vicinity of a find and to contact their supervisor and the PRS or PRM; 5. An informational brochure that identifies reporting procedures in the event of a discovery; 6. A WEAP certification of completion form signed by each worker indicating that he/she has received the training; and 7. A sticker that shall be placed on hard hats indicating that environmental training has been completed. 8.The Project Owner shall also submit the training script and, if the project owner is planning to use a multimedia presentation for training, a copy of the training presentation with the set of reporting procedures for workers to follow that will be used to present the WEAP and qualify workers to conduct ground disturbing activities that could impact paleontologic resources.	At least 15 days prior to ground disturbance, the project owner shall submit-to the CPM for approval the final WEAP and training script.	Y	15	prior to	Ground Disturbance		8/25/2014	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15.
PAL	**3**	b	Y	7. A discussion of equipment and supplies necessary for collection of fossil materials and any specialized equipment needed to prepare, remove, load, transport, and analyze large-sized fossils or extensive fossil deposits; 8. Procedures for inventory, preparation, and delivery for curation into a retrievable storage collection in a public repository or museum, which meet the Society of Vertebrate Paleontology's standards and requirements for the curation of paleontological resources; 9. Identification of the institution that has agreed to receive data and fossil materials collected, requirements or specifications for materials delivered for curation, and how they will be met, and the name and phone number of the contact person at the institution; and 10. A copy of the Paleontological resource conditions of certification.										
PUBLIC HEALTH				No public health conditions of certification are proposed.	N/A	~~N~~				~~February 28, 2018~~				
SOCIO	2		Y	The project owner shall pay the one-time statutory school facility development fees to the Carlsbad Unified School District as required by Education Code Section 17620.	At least 30 days prior to the start of project construction, the project owner shall provide to the CPM, proof of payment to the Carlsbad Unified School District of the statutory development fee.	Y	30	prior to	Construction	11/15	11/20/2015	Completed		Start of Construction Approved 6/6/16.
SOCIO	**1**		Y	The project owner shall pay or reimburse the City of Carlsbad for costs incurred in accordance with actual services performed by the City that the City would normally receive for a power plant or similar industrial development.	The project owner shall provide to the compliance project manager (CPM) proof of payment prior to the start of commercial operation.	N	N/A	Prior to	Commercial Operation	October 1, 2018	11/16/2018	Completed		
SOIL&WATER	**7**	b	Y		During operations, the project owner shall submit to the CPM any wastewater quality monitoring reports required by the City in the annual compliance report.	N	N/A	Annual	Annual Compliance Report	2018				

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SOIL&WATER	**8**	a	Y	If the project owner relies on recycled water for CECP water supply, the project owner shall provide the CPM two copies of the executed Recycled Water Purchase Agreement (agreement) with the recycled water producer and the City of Carlsbad (City) for the supply and delivery of tertiary treated recycled water to the CECP. The CECP shall not connect to the City's recycled water pipeline without the final agreement in place. The project owner shall comply with the requirements of Title 22 and Title 17 of the California Code of Regulations and section 13523 of the California Water Code.	No later than 180 days prior to the connection to the City's recycled water pipeline, the project owner shall submit two copies of the executed agreement for the long-term supply and delivery of tertiary treated recycled water to the CECP. The agreement shall specify a maximum delivery rate of 215 afy and shall specify all terms and costs for the delivery and use of recycled water by the CECP.	N	180	prior to	Connection to water system	October 12, 2017	1/29/2017	Completed	1	11/3/17 Submittal to CPM, City of Carlsbad Municipal Water District, CPM approved 3/14/18; County Approval 5/1/18
SOIL&WATER	**6**	a	Y	During normal operation the project shall use no more than three acre-feet per year (AFY) of potable water for drinking, sanitary, and fire protection testing purposes. The project shall use recycled water for all industrial and landscape irrigation purposes during operation of the CECP, unless potable water is needed for emergency backup use. For the purpose of this condition, the term emergency shall mean the inability of the CECP to take, or for the city of Carlsbad to deliver, recycled water to the CECP in a quantity sufficient to meet CECP demand due to Acts of God, natural disaster, and other circumstances beyond the control of the project owner, including interruption of recycled water service and it is necessary for the CECP to prepare to or continue to operate to serve a peaking load. If more than 3AFY of potable water is needed during operation for non-emergency uses, the owner shall be required to file a formal petition to amend the project. If the CECP requires potable water for EPS demolition and emergencies that will cumulatively exceed 300 acre-feet, during the life of the project, the project owner shall file a petition to amend. All emergency water use shall be reported in annual compliance reports. Reported values shall include monthly use and cumulative lifetimes use, in acre-feet. Prior to the use of potable or recycled water during the operation of the CECP, the project owner shall install and maintain metering devices as part of the water supply and distribution system to monitor and record in gallons per day the volume of all water sources used by the CECP. The metering devices shall be operational for the the life of the project, and an annual summary of daily water use by the CECP, differentiating between potable, emergency backup, and recycled supplies, shall be submitted to the CPM in the annual compliance report.	At least 60 days prior to use of any water source for CECP operation, the project owner shall submit to the CPM evidence that metering devices have been installed and are operational on all water supply pipelines serving the project.	N	60	prior to	Connection to water system	February 3, 2018	3/21/2018	Completed	1	City approved connections for potable and recycled water meter installations 10/17/17. Installed 3/21/18.
SOIL&WATER	**8**	b	Y		No later than 60 days prior to connection to the City's recycled water pipeline, the project owner shall submit to the CPM a copy of the Engineering Report and Cross Connection inspection and approval report from the California Department of Public Health and all water reuse requirements issued by the San Diego Regional Water Quality Control Board.	N	60	prior to	Connection to water system	February 3, 2018	8/31/2017; 11/16/17; 1/29/18	Pending	1	Engineering Report Submitted 8/31/17; revised Engineering Report Submitted November 2017, December 2017, and February 2018.
SOIL&WATER	**5**	a	Y	Prior to the use of potable water from the City of Carlsbad (City) for any purpose related to the construction or operation of the CECP, the project owner shall provide the CPM with copies of all permit(s) for the delivery and hookup of potable water. The project owner shall comply with the City's Municipal Code Title 14, Chapter14.08 for the supply and use of potable water. Potable water shall not be used for any construction or operation activity, including EPS demolition activities, that is suitable for non-potable water use, unless needed for fire protection or emergency backup supply to the recycled water service, in accordance with SOIL&WATER-6.	No later than 30 days prior to the connection to the City's potable water system, the project owner shall provide the CPM with copies of all permits for the delivery and hookup of potable water.	N	30	prior to	Connection to water system	March 5, 2018	10/17/2017	Completed	1	City issued permits for potable water permit hookup 10/17/17.
SOIL&WATER	**4**	b	Y		The project owner shall submit to the CPM the annual water quality monitoring report required by the SDRWQCB in the annual compliance report. The project owner shall notify the CPM of all WDR Order violations, the actions taken or planned to bring the project back into compliance with the WDR Order, and the date compliance was reestablished.	N	N/A	Annual	Annual Compliance Report	February 28, 2018				
SOIL&WATER	**6**	b	Y		The project owner shall provide a report on the servicing, testing, and calibration of the metering devices in the annual compliance report. The project owner shall submit a water use summary report to the CPM in the annual compliance report for the life of the project. The annual summary report shall be based on and distinguish recorded daily use and emergency uses of potable and recycled water. The report shall include calculated monthly range, monthly average, and annual use by the project in both gallons per minute and acre-feet. After the first year and for subsequent years, this information shall also include the yearly range and yearly average potable and recycled water used by the project.	N	N/A	Annual	Annual Compliance Report	February 28, 2018				
SOIL&WATER	**5**	b	Y		The project owner shall submit to the CPM any water quality monitoring reports required by the City in the annual compliance report. The project owner shall notify the CPM of any violations of the permit(s) and conditions, the actions taken or planned to bring the project back into compliance with the permit(s), and the date compliance was reestablished.	N	N/A	Annual	Annual Compliance Report	March 1, 2018				
SOIL&WATER	**3**	b	Y		The project owner shall submit to the CPM all copies of all correspondence between the project owner and the City regarding the Industrial SWPPP within ten days of its receipt or submittal. This information shall include a copy of the Notice of Intent submitted to the State Water Resources Control Board for enrollment under the NPDES General Permit for Industrial Activity.	N	10	after	Receipt/Submittal of Industrial SWPPP	September 1, 2018				

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SOIL&WATER	**7**	a	Y	Prior to connection to the City of Carlsbad's (City) sanitary sewer system, the project owner shall submit to the City all information and documentation required to satisfy City of Carlsbad Municipal Code Title 13, Chapters13.04, 13.10, and 13.16 for the discharge of sanitary wastewater to the City's sewer system. During CECP operation, any monitoring reports provided to the City shall also be provided to the CPM. The CPM shall be notified of any violations of discharge limits or amounts.	At least 60 days prior to commercial operation, the project owner shall submit the information and documentation required to satisfy Municipal Code Title 13, Chapters13.04, 13.10, and 13.16 and provide the CPM a copy of the City permits for the discharge of sanitary wastewater to the City's sewer system.	N	60	prior to	Commercial Operation	August 13, 2018	12/21/2017; 4/23/218	Completed		Submitted proof of permitting 12/21/17. Final Sanitary Sewer connection 4/2/18.
SOIL&WATER	**1**	b	Y		The project owner shall submit to the CPM all copies of correspondence between the project owner and the City regarding the Tier 3 Construction SWPPP within 10 days of its receipt or submittal. This information shall include copies of the Notice of Intent and Notice of Termination submitted to the State Water Resources Control Board for enrollment under the NPDES General Permit for Construction Activities.	N	10	after	Receipt/Submittal of Construction SWPPP	As Needed			~~1~~	Last update July 2015. No comments from City as of 8-24-15
SOIL&WATER	**6**	c			The project owner shall submit a petition to amend within 3 months of exceeding the maximum allowable 300 acre-feet of potable water for operational uses.	N	90	after	Exceeding Maximum Allowable 300 acre-Feet of Potable Water for Operational Uses	As Needed				
SOIL&WATER	**9**	a	Y	Prior to transport and disposal of any facility construction or demolition-related wastewaters offsite, the project owner shall test and classify the stored wastewater to determine proper management and disposal requirements. The project owner shall provide evidence that wastewater is disposed of at an appropriately licensed facility. The project owner shall ensure that the wastewater is transported and disposed of in accordance with the wastewater's characteristics and classification and all applicable LORS (including any CCR Title 22 Hazardous Waste and Title 23 Waste Discharges to Land requirements). Where discharge of wastewater must comply with the San Diego Regional Water Quality Control Board (SDRWQCB) and State Water Resources Control Board regulatory requirements, the project owner shall submit a Report of Waste Discharge (ROWD) to the compliance project manager (CPM) and SDRWQCB for determination of which regulatory waiver or permit applies to the proposed discharges. The project owner shall pay all necessary fees for filing and review of the ROWD and all other related fees. Checks for such fees shall be submitted to the SDRWQCB and shall be payable to the State Water Resources Control Board. The project owner shall ensure compliance with the provisions of the waiver or permit applicable to the discharge. Where the regulatory requirements are not applied pursuant to a National Pollutant Discharge Elimination System permit, it is the Commission's intent that the requirements of the applicable waiver or permit be enforceable by both the Commission and the SDRWQCB. In furtherance of that objective, the Commission hereby delegates the enforcement of the waiver or permit requirements, and associated monitoring, inspection, and annual fee collection authority, to the SDRWQCB. The CPM and SDRWQCB shall confer with each other and coordinate, as needed, in the enforcement of the requirements.	The project owner shall submit to the CPM copies of all relevant correspondence between the project owner and the SWRCB or SDRWQCB about the EPS demolition wastewater discharge requirements within ten days of its receipt or submittal. This information shall include copies of the Notice of Intent and Notice of Termination for the project. A letter from the SWRCB or SDRWQCB indicating that there is no requirement for the discharge of EPS demolition wastewater would satisfy this condition.	N	10	after	receipt or submittal of correspondence between project owner and SWRCB or SDRWQCB about the EPS demolition wastewater discharge requirements	As Needed				
SOIL&WATER	**3**	a	Y	The project owner shall comply with the requirements of the San Diego County Municipal Storm Water Permit and City of Carlsbad (City) Municipal Code Title 15, Chapter 15.12. The project owner shall develop and implement a Storm Water Pollution Prevention Plan (Industrial SWPPP) for the operation of CECP. The industrial SWPPP shall be submitted to the City for review and comment and to the CPM for review and approval and shall be prepared in accordance with the requirements of the NPDES General Permit for Industrial Activities **Order No. 2014-0057-DWQ)** and the City's Storm Water Standards Manual.	Prior to commercial operation, the project owner shall submit to the CPM a copy of the Industrial SWPPP and retain a copy on site.	N	N/A	prior to	Commercial Operation	December 1, 2018				
SOIL&WATER	**4**	a	Y	The project owner shall submit to the San Diego Regional Water Quality Control Board (SDRWQCB) all information required by the SDRWQCB to obtain a Waste Discharge Requirements (WDR) Order for the discharge of EPS demolition wastewater to the Pacific Ocean in accordance with NPDES requirements. The project owner shall submit to the CPM all copies of correspondence between the project owner and the SDRWQCB regarding the WDR Order within 10 days of its receipt or submittal.	At least two weeks prior to the start of EPS demolition activities, the project owner shall submit to the CPM a copy of the approved WDR Order for the discharge of EPS demolition wastewater to the Pacific Ocean.	N	2 weeks	prior to	Demolition Activities	TBD				
SOIL&WATER	**2**	b	Y		Within the Monthly Compliance Report, the project owner shall report the volume of potable and non-potable water used and the construction activities for which each was used.	N	N/A	Monthly	Monthly Compliance Report					
SOIL&WATER	**7**	c	Y		The project owner shall submit any notices of violation from the City to the CPM within ten days of receipt and fully explain the corrective actions taken in the annual compliance report.	N	10	after	NOV					
SOIL&WATER	**9**	b			Prior to transport and disposal of any facility construction-related wastewaters offsite, the project owner shall test and classify the stored wastewater to determine proper management and disposal requirements. The project owner shall ensure that the wastewater is transported and disposed of in accordance with the wastewater's characteristics and classification and complies with all applicable LORS (including any CCR Title 22 Hazardous Waste and Title 23 Waste Discharges to Land requirements). The project owner shall provide evidence to the CPM of proper wastewater disposal, via a licensed hauler to an appropriately licensed facility, in the monthly compliance report.	N	N/A	Monthly	Monthly Compliance Report					
SOIL&WATER	**9**	c			Where a ROWD is submitted to the SDRWQCB to obtain the appropriate waiver or permit, the appropriate waiver or permit must be obtained at least 30 days prior to the discharge.	N	30	prior to	Discharge of Water					

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SOIL&WATER	**9**	d			The project owner shall submit a copy of any correspondence between the project owner and the SDRWQCB regarding the waiver or permit and all related reports to the CPM within ten days of correspondence receipt or submittal.	N	10	after	receipt or submittal of correspondence between project owner and SDRWQCB regarding the waiver or permit					
SOIL&WATER	1	a	Y	The project owner shall comply with the requirements of the San Diego County Municipal Storm Water Permit (Order No. R9-2013-0001, NPDES No. CAS0109266) and City of Carlsbad (City) Municipal Code Title 15, Chapter 15.12. The project owner shall develop and implement a Tier 3 Construction Storm Water Pollution Prevention Plan (Construction SWPPP) for the construction of the CECP site, laydown and parking areas, and all linear facilities. The Tier 3 Construction SWPPP shall be submitted to the City for review and comment and to the CPM for approval and shall contain all of the elements required by the General Permit for Construction Activities (Order No. 2009-0009-DWQ), the Municipal Permit (Order No. R-2013-0001, NPDES No. CAS0109266), and the City's current Storm Water Standards Manual.	Prior to site mobilization, the project owner shall submit to the Compliance Project Manager (CPM) a copy of the Tier 3 Construction SWPPP that has been reviewed by the City and retain a copy on site.	Y	N/A	prior to	Site Mobilization		7/31/2014; 8/18/15; 1/6/16; 9/14/16	Completed		Start of Construction Approved 6/6/16.
SOIL&WATER	2	a	Y	Potable water shall not be used for any construction activity, including EPS demolition activities, that is suitable for non-potable water use if a non-potable water source is available at the project site. Prior to site mobilization, the project owner shall submit to the CPM a Non-Potable Construction Water Use Plan (plan) for the supply and use of non-potable water in construction activities. The plan shall consider the use of recycled water available at the site. The plan shall specify those construction activities that would use non-potable water and those construction activities that would use potable water. Potable water use for EPS demolition activities that are suitable for nonpotable water shall count toward the cumulative total limit, in accordance with SOIL&WATER-6.	Prior to site mobilization, the project owner shall submit to the CPM for review and approval the Non-Potable Construction Water Use Plan.	Y	N/A	prior to	Site Mobilization		9/18/2014, 7/28/15, 12/30/15	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15. Approved by Start of Below Grade Demolition/Berm Removal 1/15/16; Updated WDID 3/11/16; CEC Approved Start of Construction 6/6/16.
STRUC	**4**		Y	Tanks and vessels containing quantities of toxic or hazardous materials exceeding amounts specified in the 2013 CBC, shall, at a minimum, be designed to comply with H-2 Occupancy Category of the 2013 CBC.	At least 30 days (or within a project owner- and CBO-approved alternate time frame) prior to the start of installation of the tanks or vessels containing the above specified quantities of toxic or hazardous materials, the project owner shall submit to the CBO for design review and approval final design plans, specifications, and calculations, including a copy of the signed and stamped engineer's certification. The project owner shall send copies of the CBO approvals of plan checks to the CPM in the following monthly compliance report. The project owner shall also transmit a copy of the CBO's inspection approvals to the CPM in the monthly compliance report following completion of any inspection.	N	30	prior to	Installation of tanks containing toxic/haz mat	TBD				
STRUC	**1**		Y	Prior to the start of any increment of construction of any major structure or component listed in FACILITY DESIGN Table 2 of Condition of Certification GEN-2, above, the project owner shall submit to the CBO for design review and approval the proposed lateral force procedures for project structures and the applicable designs, plans and drawings for project structures. Proposed lateral force procedures, designs, plans and drawings shall be those for the following items (from Table 2, above): 1. Major project structures; 2. Major foundations, equipment supports, and anchorage; and 3. Large field-fabricated tanks. Construction of any structure or component shall not begin until the CBO has approved the lateral force procedures to be employed in designing that structure or component. The project owner shall: 1. Obtain approval from the CBO of lateral force procedures proposed for project structures; 2. Obtain approval from the CBO for the final design plans, specifications, calculations, soils reports, and applicable quality control procedures. If there are conflicting requirements, the more stringent shall govern (for example, highest loads, or lowest allowable stresses shall govern). All plans, calculations, and specifications for foundations that support structures shall be filed concurrently with the structure plans, calculations, and specifications (2013 CBC, Appendix Chapter 1, §104.1, Duties and Powers of Building Official, 105, Permits); 3. Submit to the CBO the required number of copies of the structural plans, specifications, calculations, and other required documents of the designated major structures prior to the start of on-site fabrication and installation of each structure, equipment support, or foundation (2013 CBC, Appendix Chapter 1, § 107.5 Retention of Construction Documents); 4. Ensure that the final plans, calculations, and specifications clearly reflect the inclusion of approved criteria, assumptions, and methods used to develop the design. The final designs, plans, calculations, and specifications shall be signed and stamped by the responsible design engineer (2013 CBC, Appendix Chapter 1, §107.3.4, Design Professional in Responsible Charge); and	At least 60 days (or within a project owner- and CBO-approved alternative time frame) prior to the start of any increment of construction of any structure or component listed in FACILITY DESIGN Table 2 of Condition of Certification GEN-2, above, the project owner shall submit to the CBO the above final design plans, specifications and calculations, with a copy of the transmittal letter to the CPM. The project owner shall submit to the CPM, in the next monthly compliance report, a copy of a statement from the CBO that the proposed structural plans, specifications, and calculations have been approved and comply with the requirements set forth in applicable engineering LORS.	N	60	Prior to	Equipment Construction				1	

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STRUC	**2**	a	Y	The project owner shall submit to the CBO the required number of sets of the following documents related to work that has undergone CBO design review and approval: 1. Concrete cylinder strength test reports (including date of testing, date sample taken, design concrete strength, tested cylinder strength, age of test, type and size of sample, location and quantity of concrete placement from which sample was taken, and mix design designation and parameters); 2. Concrete pour sign-off sheets; 3. Bolt torque inspection reports (including location of test, date, bolt size, and recorded torques); 4. Field weld inspection reports (including type of weld, location of weld, inspection of non-destructive testing procedure and results, welder qualifications, certifications, qualified procedure description or number (ref: AWS); and 5. Reports covering other structural activities requiring special inspections shall be in accordance with the 2013 CBC, Chapter 17, § 1704, Special Inspections, and Structural Observations.	If a discrepancy is discovered in any of the above data, the project owner shall, within five days, prepare and submit an NCR describing the nature of the discrepancies and the proposed corrective action to the CBO, with a copy of the transmittal letter to the CPM (2013 CBC, Chapter 17, § 1704.2.4, Report Requirements). The NCR shall reference the condition(s) of certification and the applicable CBC chapter and section.	N	5	after	Discrepancy noted					
STRUC	**2**	b	Y		Within five days of resolution of the NCR, the project owner shall submit a copy of the corrective action to the CBO and the CPM.	N	5	after	Corrective Action		1/30/2018			
STRUC	**2**	c	Y		The project owner shall transmit a copy of the CBO's approval or disapproval of the corrective action to the CPM within 15 days.	N	15	after	Corrective Action					
STRUC	**2**	d	Y		If disapproved, the project owner shall advise the CPM, within five days, the reason for disapproval, and the revised corrective action necessary to obtain the CBO's approval.	N	5	after	Corrective Action					
STRUC	**3**		Y	The project owner shall submit to the CBO design changes to the final plans required by the 2013 CBC, including the revised drawings, specifications, calculations, and a complete description of, and supporting rationale for, the proposed changes, and shall give to the CBO prior notice of the intended filing (2013 CBC, Appendix Chapter 1, § 107, Submittal Documents; 2013 California Administrative Code, § 4-215, Changes in Approved Drawings and Specifications).	On a schedule suitable to the CBO, the project owner shall notify the CBO of the intended filing of design changes and shall submit the required number of sets of revised drawings and the required number of copies of the other above-mentioned documents to the CBO, with a copy of the transmittal letter to the CPM. The project owner shall notify the CPM, via the monthly compliance report, when the CBO has approved the revised plans.	N	as needed	N/A	Filing of Design Changes					
TLSN	**1**			The project owner shall ensure that the proposed 138-kV and 230-kV transmission lines are constructed according to the respective requirements of California Public Utility Commission's GO-95, GO-52, GO-131-D, GO-128, Title 8, and Group 2, High Voltage Electrical Safety Orders, Sections 2700 through 2974 of the California Code of Regulations, and San Diego Gas & Electric's EMF-reduction guidelines.	At least 30 days before starting construction of the transmission lines or related structures and facilities, the project owner shall submit to the compliance project manager (CPM) a letter signed by a California registered electrical engineer affirming that the lines will be constructed according to the requirements stated in the condition.	N	30	prior to	construction of the transmission lines or related structures and facilities	December 10, 2017	7/25/2017	Completed		CPM approved 8/9/17.
TLSN	**4**		Y	The project owner shall ensure that all permanent metallic objects within the right-of-way of each of the two project-related lines are grounded according to existing industry practices.	At least 30 days before the lines are energized, the project owner shall transmit to the CPM a letter confirming compliance with this condition.	N	30	prior to	energized lines	February 2, 2018	2/12/2018	Completed		CPM approved 3/21/17
TLSN	**2**			The project owner shall use a qualified individual to measure the strengths of the electric and magnetic fields from each transmission line at the points of maximum intensity along its route. The measurements shall be made after energization according to the American National Standard Institute/Institute of Electrical and Electronic Engineers (ANSI/IEEE) standard procedures. These measurements shall be completed not later than six months after the start of operations.	The project owner shall file copies of the post-energization measurements with the CPM within 60 days after completion of the measurements.	N	60	after	post-energization measurements	November 28, 2018				
TLSN	**3**			The project owner shall ensure that the rights-of-way of the proposed transmission lines are kept free of combustible material, as required under the provisions of section 4292 of the Public Resources Code and section 1250 of Title 14 of the California Code of Regulations.	During the first five years of plant operation, the project owner shall provide a summary of inspection results and any fire prevention activities carried out along the right-of-way of each line and provide such summaries in the Annual Compliance Report.	N	N/A	Annual	During the first five years of plant operation	February 27, 2019				
TRANS	1		Y	The project owner shall consult with the City of Carlsbad and prepare and submit to the city of Carlsbad for review and comment and the Compliance Project Manager (CPM) for approval a construction/demolition traffic control plan. The plan shall be implemented during all phases of construction/demolition and shall addresses the following issues: • timing of truck trips, including heavy equipment and building materials deliveries, especially those that would cross the railroad tracks; • redirecting construction and demolition traffic with a flag person at a minimum for trucks traveling eastbound on Cannon Road from the SDG&E Service Gate to cross the railroad tracks; • signing, lighting, and traffic control device placement if required; • need for construction work hours and arrival/departure times outside and during peak traffic periods; • insurance of access for emergency vehicles to the project site; • temporary closure of travel lanes; • access to adjacent residential and commercial property during the construction of all pipelines; • specification of construction-related haul routes; and • identify safety procedures for exiting and entering the site access gate.	At least 30 days prior to tank demolition, the project owner shall provide the traffic control plan to the city of Carlsbad for review and comment and to the CPM for review and approval.	Y	30	prior to	Tank Demolition	September 25, 2014	9/30/2014; 8/7/15; 11/18/15	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15.
TRANS	2		Y	The project owner shall submit to the FAA Form 7460-1, Notice of Proposed Construction or Alteration, regarding any structures or objects exceeding 140 feet in height used during construction or operation of the Carlsbad Energy Center Project (CECP), or during any related activities, such as demolition of the Encina Power Station, and shall secure a Determination of No Hazard to Navigable Airspace for each structure or object. The structures or objects shall be marked and lit as required by the FAA so that they do not create a hazard to air navigation.	At least 30 days prior to the start of tank demolition, the project owner shall provide copies of the FAA Form 7460-1 and copies of the FAA Determination of No Hazard to Navigable Airspace to the CPM, the city of Carlsbad Planning Department, and the county of San Diego at McClellan-Palomar Airport. The project owner shall also provide pictures of lit and marked structures or objects after the lighting and marking have been completed.	Y	30	prior to	Tank Demolition	6/15	7/24/2015	Completed		Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15. Start of Construction Approved 6/6/16. FAA issued extensions for all determinations on 3/8/17. Extensions to 9/8/18.

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TRANS	**3**		Y	Prior to start-up and testing activities of the plant and all related facilities, the project owner shall work with the FAA and the county of San Diego at McClellan-Palomar Airport to notify all pilots using the McClellan-Palomar Airport and airspace above the CECP of potential air hazards. These activities would include, but not be limited to, the project owner working with the FAA in issuing a notice to airmen (NOTAM) of the identified air hazard and updating the Terminal Area Chart and all other FAA-approved airspace charts used by pilots that include the CECP site to indicate that pilots should avoid direct overflight.	At least 60 days prior to start of project operation, the project owner shall submit to the CPM for review and approval a letter from the FAA showing compliance with these measures.	N	60	prior to	Commercial Operation	March 4, 2018	5/2/2018	Completed		FAA issued Letter to Airmen April 24, 2018. Graphic NOTAM published May 24, 2018. Chart supplement was submitted for publiction May 1, 2018.
TRANS	**5**	d	Y		Within 30 days after completion of all project-related construction and demolition (completion of Phase IV), the project owner shall meet with the CPM and the city of Carlsbad to determine, receive approval for, and schedule the actions necessary to complete the repair of identified sections of public roadways to original condition or better or as near-original condition as possible. Following completion of any regional road improvements, the project owner shall provide to the CPM a letter from the city of Carlsbad if work occurred within its jurisdictional public right-of-way stating its satisfaction with the road improvements.	N	30	after	Construction	September 21, 2018			1	
TRANS	**5**	a	Y	During and following completion of project construction and demolition, the project owner shall repair any damage to roadways affected by construction/demolition activity to pre-project road conditions or better. Restoration of significant damage which could cause hazards (such as potholes, deterioration of pavement edges, or damaged signage) shall take place immediately after the damage has occurred. Prior to the start of demolition and construction, the project owner shall photograph or videotape, all roadways that will be affected by pipeline construction and heavy truck traffic. The project owner shall provide the CPM and the city of Carlsbad with a copy of the images for the roadway segments under its jurisdiction. Also, prior to start of demolition and construction, the project owner shall notify the city about the schedule for project demolition/construction. The purpose of this notification is to allow the city the opportunity to postpone any planned roadway resurfacing and/or improvement projects until after the project demolition/construction has taken place and to coordinate demolition/construction-related activities associated with other projects.	If damage to public roads, easements, or rights-of-way occurs during demolition and construction, the project owner shall notify the CPM, and the city of Carlsbad if the damage occurs in their jurisdiction, to identify the sections to be repaired. At that time, the project owner and CPM shall establish a schedule for completion and approval of the repairs.	N	as needed	N/A	Damage to public roads, easements, or rights-of-way		9/17/2014; 7/14/17		1	Approved by Start of Construction Letter from CPM, received on 12-9-14. Submitted updated road video 7/14/17. CPM approved 10/2/17.
TRANS	**5**	b	Y		The project owner shall provide monthly inspection reports of the condition of the roadways during the demolition and construction period, and roadway repairs undertaken during that period.	N	N/A	Monthly	Monthly Inspection Reports					
TRANS	**5**	c	Y		Following completion of any repairs in the city of Carlsbad's jurisdiction, the project owner shall provide the CPM with letters signed by the city of Carlsbad stating their satisfaction with the repairs.	N	as needed	N/A	Completion of any repairs					
TRANS	**6**		Y	The project owner shall comply with Caltrans' and other relevant jurisdictions' limitations on vehicle sizes and weights. In addition, the project owner shall obtain necessary transportation permits from Caltrans and all relevant jurisdictions for roadway use.	In the Monthly Compliance Reports, the project owner shall submit copies of any permits received during that reporting period. In addition, the project owner shall retain copies of these permits and supporting documentation in its compliance file for at least six months after the start of commercial operation.	N	N/A	Monthly	Monthly Compliance Report					
TRANS	**8**		Y	The project owner shall comply with limitations for encroachment into public rights-of-way imposed by Caltrans and other relevant jurisdictions and shall obtain necessary encroachment permits from Caltrans and all relevant jurisdictions.	In Monthly Compliance Reports, the project owner shall submit copies of permits received during the reporting period. In addition, the project owner shall retain copies of these permits and supporting documentation in its compliance file for at least six months after the start of commercial operation.	N	N/A	Monthly	Monthly Compliance Report					
TRANS	4		Y	During project construction/demolition the project owner shall implement a rail crossing safety plan to address foot traffic as well as construction-and demolition-related vehicle crossing and the transport of heavy/oversize loads over the internal rail crossing.	At least 60 days prior to the start of tank demolition, the project owner shall submit the rail crossing safety plan to the CPM for review and approval.	Y	60	prior to	Tank Demolition		9/5/2014, 6/30/15, 12/23/15	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15.
TRANS	7		Y	During project construction/demolition, the project owner shall implement a parking and staging plan for project construction and demolition to enforce a policy that all project-related parking occurs on site or in designated off-site parking areas.	At least 60 days prior to start of tank demolition, the project owner shall submit a parking and staging plan to the City of Carlsbad and other jurisdictions affected by site selection, such as the City and/or County of San Diego, for review and comment and to the CPM for review and approval.	Y	60	prior to	Tank Demolition		8/22/14; 7/15/15; 11/11/15	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15.
TSE	1		Y	The project owner shall furnish to the CPM and to the CBO a schedule of transmission facility design submittals, a Master Drawing List, a Master Specifications List, and a Major Equipment and Structure List. The schedule shall contain a description and list of proposed submittal packages for design, calculations, and specifications for major structures and equipment. To facilitate audits by Energy Commission staff, the project owner shall provide designated packages to the CPM when requested.	At least 60 days (or a lesser number of days mutually agreed to by the project owner and the CBO) prior to the start of construction, the project owner shall submit the schedule, a Master Drawing List, and a Master Specifications List to the CBO and to the CPM. The schedule shall contain a description and list of proposed submittal packages for design, calculations, and specifications for major structures and equipment (see a list of major equipment in Table 1: Major Equipment List below). Additions and deletions shall be made to the table only with CPM and CBO approval. The project owner shall provide schedule updates in the Monthly Compliance Report. Table 1: Major Equipment List Breakers, Step-up Transformer, Switchyard, Busses, Surge Arrestors, Disconnects and Wave-traps, Take off facilities, Electrical Control Building, Switchyard Control Building, Transmission Pole/Tower, Insulators and Conductors, and Grounding System	Y	60	prior to	Construction	10/15	10/27/2015	Completed		Start of Construction Approved 6/6/16.
TSE	**5**	a	Y	The project owner shall provide the following notice to the California ISO prior to synchronizing the facility with the California Transmission system: a) At least one week prior to synchronizing the facility with the grid for testing, provide the California ISO a letter stating the proposed date of synchronization; and	The project owner shall provide copies of the California ISO letter to the CPM when it is sent to the California ISO one week prior to initial synchronization with the grid.	N	7	prior to	Synchronizing facility with the California transmission system	April 26, 2018	4/24/2018			Unit 10 4/24/18; Unit 9 5/25/18

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TSE	**5**	b	N	b) At least one business day prior to synchronizing the facility with the grid for testing, provide telephone notification to the California ISO Outage Coordination Department.	A report of conversation with the California ISO shall be provided electronically to the CPM one day before synchronizing the facility with the California transmission system for the first time.	N	1	prior to	Synchronizing facility with the California transmission system	March 3, 2018	5/2/2018			Unit 10 5/2/18; Unit 9 6/4/18
TSE	**6**		N	The project owner shall be responsible for the inspection of the transmission facilities during and after project construction, and any subsequent CPM and CBO approved changes thereto, to ensure conformance with CPUC GO-95 or NESC, Title 8, CCR, Articles 35, 36 and 37 of the, "High Voltage Electric Safety Orders", applicable interconnection standards, NEC and related industry standards. In case of non-conformance, the project owner shall inform the CPM and CBO in writing, within ten days of discovering such nonconformance and describe the corrective actions to be taken.	Within 120 days after first synchronization of the project, the project owner shall transmit to the CPM and CBO: a) "As built" engineering description(s) and one-line drawings of the electrical portion of the facilities signed and sealed by the registered electrical engineer in responsible charge. A statement attesting to conformance with CPUC GO-95 or NESC, Title 8, California Code of Regulations, Articles 35, 36, and 37 of the "High Voltage Electric Safety Orders" and applicable interconnection standards, NEC, related industry standards, and these conditions shall be provided concurrently. b) An "as built" engineering description of the mechanical, structural, and civil portion of the transmission facilities signed and sealed by the registered engineer in responsible charge or acceptable alternative verification. "As built" drawings of the electrical, mechanical, structural, and civil portion of the transmission facilities shall be maintained at the power plant and made available, if requested, for CPM audit as set forth in the "Compliance Monitoring Plan". c) A summary of inspections of the completed transmission facilities, and identification of any nonconforming work and corrective actions taken, signed and sealed by the registered engineer in charge.	N	120	after	Synchronizing facility with the California transmission system	July 2, 2018				
TSE	**3**		Y	The project owner shall ensure that the design, construction and operation of the proposed transmission facilities will conform to all applicable LORS, including the requirements listed below. The project owner shall submit the required number of copies of the design drawings and calculations to the CBO as determined by the CBO. a) The power plant switchyard and outlet line shall meet or exceed the electrical, mechanical, civil and structural requirements of CPUC General Order 95 or National Electric Safety Code (NESC), Title 8 of the California Code and Regulations (Title 8), Articles 35, 36, and 37 of the "High Voltage Electric Safety Orders", California ISO standards, National Electric Code (NEC) and related industry standards. b) Breakers and busses in the power plant switchyard and other switchyards, where applicable, shall be sized to accommodate full output from the project and to comply with a short-circuit analysis.	At least 60 days prior to the start of construction of transmission facilities (or a lesser number of days mutually agreed to by the project owner and CBO), the project owner shall submit to the CBO for approval: a) Design drawings, specifications and calculations conforming with CPUC General Order 95 or NESC, Title 8, Articles 35, 36 and 37 of the "High Voltage Electric Safety Orders", NEC, applicable interconnection standards and related industry standards, for the poles/towers, foundations, anchor bolts, conductors, grounding systems and major switchyard equipment. b) For each element of the transmission facilities identified above, the submittal package to the CBO shall contain the design criteria, a discussion of the calculation method(s), a sample calculation based on "worst case conditions"* and a statement signed and sealed by the registered engineer in responsible charge, or other acceptable alternative verification, that the transmission element(s) will conform with CPUC General Order 95 or NESC, Title 8, California Code of Regulations, Articles 35, 36 and 37 of the, "High Voltage Electric Safety Orders", NEC, applicable interconnection standards, and related industry standards. *Worst case conditions for the foundations would include for instance, a dead-end or angle pole.	N	60	prior or less	Start of construction of transmission facilities		9/11/2017	Completed	1	
TSE	**2**		Y	For the power plant switchyard, outlet line and termination, the project owner shall not begin any increment of construction until plans for that increment have been approved by the CBO. These plans, together with design changes and design change notices, shall remain on the site for one year after completion of construction. The project owner shall request that the CBO inspect the installation to ensure compliance with the requirements of applicable LORS. The following activities shall be reported in the Monthly Compliance Report: A. receipt or delay of major electrical equipment; B. testing or energization of major electrical equipment; and C. the number of electrical drawings approved, submitted for approval, and still to be submitted.	At least 30 days (or a lesser number of days mutually agreed to by the project owner and the CBO) prior to the start of each increment of construction, the project owner shall submit to the CBO for review and approval the final design plans, specifications, and calculations for equipment and systems of the power plant switchyard, outlet line and termination, including a copy of the signed and stamped statement from the responsible electrical engineer attesting to compliance with the applicable LORS, and send the CPM a copy of the transmittal letter in the next Monthly Compliance Report.	N	30	prior to	Increment of Construction (TSE)		8/11/17		1	8/11/17 submittal included Underground Cable and Duct Bank Design
TSE	**3**			c) Outlet line crossings and line parallels with transmission and distribution facilities shall be coordinated with the transmission line owner and comply with the owner's standards. d) The project conductors shall be sized to accommodate the full output from the project. e) Termination facilities shall comply with applicable SDG&E interconnection standards. f) The project owner shall provide the following for all 6 CECP units to the CPM: i) The Special Protection System (SPS) sequencing and timing if applicable, ii) The electrical one-line diagrams for the SDG&E Encina 230 kV switchyard with all updates of buses and circuit breakers with associated disconnect switches including their types and/or ampere ratings and leveled transmission outlets, considering decommissioning and disconnection of all existing Encina generator units iii) A letter stating that the mitigation measures or projects selected by the transmission owners for each criteria violation are acceptable, if applicable, iv) The operational study report based on 2017 in-service date or current commercial operation date (COD) system conditions from the California and/or SDG&E. v) A copy of the executed LGIA signed by the California ISO and the project owner.	c) Electrical one-line diagrams signed and sealed by the registered professional description of equipment and the configurations covered by requirements TSE-3 a) through f) above. d) The electrical one-line diagrams for the SDG&E Encina 230 kV switchyard with all updates of buses and circuit breakers with associated disconnect switches including their types and/or ampere ratings and leveled transmission outlets, considering decommissioning and disconnection of all existing Encina generator units e) The Special Protection Scheme (SPS) sequencing and timing if applicable shall be provided concurrently to the CPM. f) A letter stating that the mitigation measures or projects selected by the transmission owners for each criteria violation are acceptable, if applicable. g) The operational study report for the CECP units based on 2017 in-service date or current COD system conditions from the California ISO and/or SDG&E. h) A copy of the executed LGIA for the CECP signed by the California ISO and the project owner.	N					8/17/17; 8/21/17; 9/11/17		1	Item e submitted to the CPM 8/21/17; item e ,f 9/11/17; Item a, b, c, d 8/17/17 submitted to the CBO. Item e, g, and h submitted to the DCBO 8/21/17

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TSE	**4**		Y	The project owner shall inform the CPM and CBO of any impending changes that may not conform to requirements TSE-3 a) through f), and have not received CPM and CBO approval, and request approval to implement such changes. A detailed description of the proposed change and complete engineering, environmental, and economic rationale for the change shall accompany the request. Construction involving changed equipment or substation configurations shall not begin without prior written approval of the changes by the CBO and the CPM.	At least 60 days prior to the construction of transmission facilities, the project owner shall inform the CBO and the CPM of any impending changes that may not conform to requirements of TSE-3 and request approval to implement such changes.	N	60	prior to	Construction of Transmission Facilities				1	
TSE	**5**				The project owner shall contact the California ISO Outage Coordination Department, Monday through Friday, between the hours of 0700 and 1530 at (916) 351-2300 at least one business day prior to synchronizing the facility with the grid for testing.	N	1	prior to	Synchronizing facility with the California transmission system		5/2/2018			Unit 10 5/2/18; Unit 9 6/4/18 Units 6-8 do not require sync notice with CALISO as they are considered one operationg unit.
VIS	**3**	b	N	b) A list (prepared by a qualified professional arborist familiar with local growing conditions) of proposed species, specifying installation sizes, growth rates, expected time to maturity, expected size at five years and at maturity, spacing, number, availability, and a discussion of the suitability of the plants for the site conditions and mitigation objectives, with the objective of providing the widest possible range of species from which to choose; c) Maintenance procedures, including any needed irrigation and a plan for routine annual or semi-annual debris removal for the life of the project; d) A procedure for monitoring for and replacement of unsuccessful plantings for the life of the project; and e) One set of 11"x17" color photo-simulations of the proposed landscaping landscape condition at start of construction and at five years and twenty years after planting, as viewed from Key Observation Point 1 6 (location shown on Visual Resources Figure 3 of the Staff Assessment). The plan shall not be implemented until the project owner receives final approval from the CPM.	3. The planting must occur during the first optimal planting season following site mobilization. The project owner shall simultaneously notify the CPM and the City of Carlsbad within seven days after completing installation of the landscaping, that the landscaping is ready for inspection.	N	7	after	Landscaping	October 2, 2017	1/4/2018	Completed	1	Notified CPM and City landscaping is installed.
VIS	3	a	Y	The project owner shall provide a detailed plan of the northeast laydown area for review and approval. The project owner shall modify the footprint of the proposed northeast laydown site as needed to avoid perimeter berm or tree removal. The project owner shall provide supplemental landscaping during or prior to the construction phase that reduces the visibility of construction staging activities, equipment and materials, as needed. Where supplemental or replacement planting is needed to provide screening of staging activities, trees and other vegetation consisting of informal groupings of fast-growing evergreens shall be strategically placed along the northern, eastern and western boundaries of the staging sites, as appropriate, of sufficient density and height to provide the greatest feasible screening within the shortest feasible time. Planting of the landscape screening shall be implemented as soon after start of project construction as feasible, in order to maximize growing time and screening of staging activities during the construction period.	1) The landscaping plan shall be submitted to the CPM for review and approval, and simultaneously to the City of Carlsbad for review and comment, at least 90 days prior to start of construction. 2) If the CPM determines that the plan requires revision, the project owner shall provide to the CPM and simultaneously to the city of Carlsbad a revised plan for review and approval by the CPM.	Y	90	prior to	Construction	November 15, 2015	2/25/2016; 6/6/16	Completed	1	Submitted concurrently to the City of Carlsbad for review and comment. Implement in Phase II. Start of Construction Approved 6/6/16.
VIS	2	a	Y	The project owner shall provide perimeter landscaping that reduces the visibility of the power plant structures in accordance with local policies and ordinances. Trees and other vegetation consisting of informal groupings of tall, fast-growing evergreen shrubs and trees shall be strategically placed along the eastern, western, and northern facility boundaries, consistent with transmission line safety requirements. The objective shall be to create landscape screening of sufficient density and height to screen the power plant structures to the greatest feasible extent in the shortest feasible time; and to provide timely replacement for aging or diseased tree specimens on site in order to avoid future loss of existing visual screening. The design approach shall include both fast-growing tall shrubs to provide quick screening, and tall evergreen trees similar to those existing on site, to provide an ultimate overall canopy height comparable to that existing atop the CECP site earth berms. In order to compensate for recent tree losses in the berm along the I-5 frontage and enhance perimeter screening in the earliest feasible time-frame, implementation of VIS-2 shall begin at the earliest feasible time, in conjunction with Phase I construction. Also, in anticipation of future I-5 widening, planting under VIS-2 shall include supplemental tall tree planting in available areas outside of the anticipated I-5 right-of-way. In addition, the project owner shall, in coordination with the City of Carlsbad, prepare and submit supplemental, modified landscape plans to provide for replacement tree planting as needed, to the greatest feasible extent, in the future event of loss of existing tree screening due to City of Carlsbad sewer and/or lift station projects. Such supplemental landscape plans shall also provide the plan components described in items a through d, below, and be subject to the same verification procedures. The project owner shall submit to the CPM for review and approval and simultaneously to the City of Carlsbad for review and comment a landscaping plan whose proper implementation will satisfy these requirements. The plan shall include: a. A detailed landscape, grading, and irrigation plan, at a reasonable scale. The plan shall demonstrate how the requirements stated above shall be met. The plan shall provide a detailed installation schedule demonstrating installation of as much of the landscaping as early in the construction process as is feasible in coordination with project construction;	1. The landscaping plan shall be developed and submitted for review at the earliest feasible time during or prior to Phase I construction. The landscaping plan shall be submitted to the CPM for review and approval and simultaneously to the city of Carlsbad for review and comment at least 90 days prior to installation. 2. If the CPM determines that the plan requires revision, the project owner shall provide to the CPM and simultaneously to the City of Carlsbad a revised plan for review and approval by the CPM.	Y	90	prior to	Landscaping	March 16, 2016	3/23/2016	Completed		Submitted concurrently to the City of Carlsbad for review and comment. Implement in Phase II. Start of Construction Approved 6/6/16.

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VIS	**4**	a	N	To the extent feasible, consistent with safety and security considerations, the project owner shall design and install all permanent exterior lighting such that: a) lamps and reflectors are not visible from beyond the project site, including any off-site security buffer areas; b) lighting does not cause excessive reflected glare; c) direct lighting does not illuminate the nighttime sky; d) illumination of the project and its immediate vicinity is minimized; and e) the lighting complies with local policies and ordinances. The project owner shall submit to the CPM for review and approval and simultaneously to the City of Carlsbad for review and comment a lighting mitigation plan that includes the following: a. Location and direction of light fixtures shall take the lighting mitigation requirements into account; b. Lighting design shall consider setbacks of project features from the site boundary to aid in satisfying the lighting mitigation requirements; c. Lighting shall incorporate fixture hoods/shielding, with light directed downward or toward the area to be illuminated; d. Light fixtures that are visible from beyond the project boundary shall have cutoff angles that are sufficient to prevent lamps and reflectors from being visible beyond the project boundary, except where necessary for security; e. All lighting shall be of minimum necessary brightness consistent with operational safety and security; f. Lights in high illumination areas not occupied on a continuous basis (such as maintenance platforms) shall have (in addition to hoods) switches, timer switches, or motion detectors so that the lights operate only when the area is occupied; and g. In order to conform with Condition of Certification BIO-7, FAA-required exhaust stack lighting shall be white strobe-type lighting.	At least 90 days prior to ordering any permanent exterior lighting, the project owner shall contact the CPM to discuss the documentation required in the lighting mitigation plan.	N	90	prior to	Ordering of Lighting	August 30, 2017	8/28/17; 10/10/17	Completed		CPM approved 9/11/17 for Admin., Warehouse, and PDCs.
VIS	**1**	c	Y		The project owner shall provide a status report regarding surface treatment maintenance in the Annual Compliance Report. The report shall specify: a) the condition of the surfaces of all structures and buildings at the end of the reporting year; b) maintenance activities that occurred during the reporting year; and c) the schedule of maintenance activities for the next year.	N	N/A	Annual	Annual Compliance Report	February 28, 2018				
VIS	**2**	c	Y		4. The project owner shall report landscape maintenance activities, including replacement of dead or dying vegetation, for the previous year of operation in each Annual Compliance Report. The City of Carlsbad, with the concurrence of the CPM, shall have authority to require replacement planting of dead or dying vegetation through the life of the project	N	N/A	Annual	Annual Compliance Report	February 28, 2018				
VIS	**3**	c	Y		4. The project owner shall report landscape maintenance activities, including replacement of dead or dying vegetation, for the previous year of operation in each Annual Compliance Report.	N	N/A	Annual	Annual Compliance Report	February 28, 2018				
VIS	**1**	b	Y		Prior to the start of commercial operation, the project owner shall notify the CPM that surface treatment of all listed structures and buildings has been completed and they are ready for inspection and shall submit one set of electronic color photographs from the same key observation points identified in (d) above.	N	N/A	prior to	Commercial Operation	May 1, 2018	11/16/2018	Completed		
VIS	**4**	c	N		Prior to commercial operation, the project owner shall notify the CPM that the lighting has been completed and is ready for inspection.	N	N/A	prior to	Commercial Operation	October 11, 2018	11/15/2018	Completed		
VIS	**1**	a	Y	The project owner shall treat the surfaces of all project structures and buildings visible to the public such that: a) their colors minimize visual intrusion and contrast by blending with the landscape; b) their colors and finishes do not create excessive glare; and c) their colors and finishes are consistent with local policies and ordinances. The transmission line conductors shall be non-specular and non-reflective, and the insulators shall be non-reflective and non-refractive. Surface color treatment shall include painting of turbine inlet filters, and other features in a dark color and value to match the surrounding tree canopy; and painting of exhaust stacks of a light color and value to blend with the sky. The project owner shall submit for CPM review and approval, a specific surface treatment plan that will satisfy these requirements. The treatment plan shall include: a. A description of the overall rationale for the proposed surface treatment, including the selection of the proposed color(s) and finishes; b. A list of each major project structure, building, tank, pipe, and wall; the transmission line towers and/or poles; and fencing, specifying the color(s) and finish proposed for each. Colors must be identified by vendor, name, and number; or according to a universal designation system; c. One set of color brochures or color chips showing each proposed color and finish; d. One set of 11" x 17" color photo simulations at life size scale, of the treatment proposed for use on project structures, including structures treated during manufacture, from Key Observation Points 2 and 5 (locations shown on Visual Resources Figure 3 of the Staff Assessment); e. A specific schedule for completion of the treatment; and f. A procedure to ensure proper treatment maintenance for the life of the project. The project owner shall not specify to the vendors the treatment of any buildings or structures treated during manufacture, or perform the final treatment on any buildings or structures treated in the field, until the project owner receives notification of approval of the treatment plan by the CPM. Subsequent modifications to the treatment plan are prohibited without CPM approval.	At least 90 days prior to specifying to the vendor the colors and finishes of the first structures or buildings that are surface treated during manufacture, the project owner shall submit the proposed treatment plan to the CPM for review and approval and simultaneously to the City of Carlsbad for review and comment. If the CPM determines that the plan requires revision, the project owner shall provide to the CPM a plan with the specified revision(s) for review and approval by the CPM before any treatment is applied. Any modifications to the treatment plan must be submitted to the CPM for review and approval.	N	90	prior to	Surface Treatment	Feb	2/12/2016; 12/11/17	Completed		Start of Construction Approved 6/6/16.

Technical Area	COC Number	Subtask	Deliverable Req.	Description	Verification/Action/Submittal Required	Required Prior to Start of Construction?	Action Days	Submittal Timing	Submittal Trigger Event	Expected Submittal Date	Actual Submittal Date	Compliance Status	Priority (Tier 1, 2, or 3)	Comments
VIS	**5**	b	Y	The Cumulative Impact Mitigation Plan shall include a landscape planting buffer zone along the entire CECP/I-5 boundary, to accommodate replacement tree canopy of sufficient height and density as to provide substantial visual screening of the tall amended CECP features, including exhaust stacks and transmission poles; and to substantially replace any existing tree canopy on the eastern CECP boundary lost to highway expansion. The landscape buffer may occupy portions of the CECP site, the Caltrans right-of-way, or both. Wherever feasible, the landscape buffer shall maintain a minimum 20 foot width. Where infeasible, exceptions shall be approved by the CPM. The solution developed under Condition of Certification VIS-5 shall not preclude relocation or undergrounding of transmission poles or other features, if necessary to provide the stipulated visual buffer or achieve adequate long-term project screening. Landscaping of the buffer zone shall include installation of large-container (24-inch box or larger, as needed), fast-growing evergreen trees in sufficient density to provide comparable or better visual screening of the CECP site than currently exists, within the shortest feasible period. Trees shall be selected and located so as to achieve substantial screening within a period of five years from the time of planting. The plan shall, at a minimum, include the following components: a. a record of discussions, meetings and planning activities conducted with Caltrans; b. the conclusions of these coordination activities; c. detailed plans, elevations, cross-sections or other details, including a detailed list of plants and container size, sufficient to fully convey how the objectives of effective visual screening of the CECP are to be achieved. To the extent possible, the plans shall comply with the city of Carlsbad Landscape Manual as applicable. The plan shall specifically address visual design of security barriers required under Condition of Certification HAZ-8 to ensure their aesthetic quality and compatibility. To the extent feasible, the plans shall conform with the intent of the Caltrans Design Guidelines for the I-5 NCC Project, Coastal Mesa Theme Unit (Caltrans 2013). ; and d. a proposed construction schedule	At the earliest feasible time, the project owner shall coordinate with Caltrans to discuss specific hazard and visual mitigation strategies. The project owner shall work with Caltrans to devise a specific Cumulative Impact Mitigation Plan for accommodating hazard protection and visual screening, to be implemented at the time of I-5 widening. Following coordination and plan development with Caltrans, the project owner shall submit a draft of the Cumulative Impact Mitigation Plan to the city of Carlsbad for review and comment, and to the CPM for review and approval, at least 180 days prior to completion by Caltrans of I-5 widening in the area of the CECP boundary.	N	180	prior to	I-5 Widening DEIS	TBD				
VIS	**5**	d	N		After receiving approval, the project owner shall complete implementation of the mitigation plan at the earliest feasible opportunity, but not later than 180 days after plan approval.	N	180	after	I-5 Widening DEIS	TBD				
VIS	**4**	b	Y		At least 60 days prior to ordering any permanent exterior lighting, the project owner shall submit to the CPM for review and approval and simultaneously to the City of Carlsbad for review and comment a lighting mitigation plan. If the CPM determines that the plan requires revision, the project owner shall provide to the CPM a revised plan for review and approval by the CPM. The project owner shall not order any exterior lighting until receiving CPM approval of the lighting mitigation plan.	N	60	prior to	Ordering of Lighting		8/28/2017; 10/20/17			Submittal on 8/28/17 for administration, warehouse, power distribution center buildings, and the fire pump enclosure lighting. CPM approved 9/11/17. Addendum 10/20/17
VIS	**2**	b	N		3. The planting must occur during the first optimal planting season following site mobilization. The project owner shall simultaneously notify the CPM and the City of Carlsbad within seven days after completing installation of the landscaping, that the landscaping is ready for inspection.	N	7	after	Landscaping					
VIS	**4**	e	Y		Within 48 hours of receiving a lighting complaint, the project owner shall provide the CPM with a complaint resolution form report as specified in the Compliance General Conditions including a proposal to resolve the complaint, and a schedule for implementation.	N	48 hrs	within receipt	Lighting Complaint					
VIS	**3**	B		If necessary to provide visual screening of staging activities, equipment and materials in the short term, the project owner shall provide temporary dark-colored, opaque fencing to provide visual screening until landscape screening described above has achieved sufficient maturity to provide visual screening. Existing opaque fencing shall be maintained along the Carlsbad Boulevard frontage of the EPS for the duration of construction and demolition. The project owner shall submit to the CPM for review and approval, and simultaneously to the city of Carlsbad for review and comment, a landscaping plan whose proper implementation will satisfy these requirements. The plan shall include: a) A detailed landscape, grading, and irrigation plan, at a reasonable scale. The plan shall demonstrate how the requirements stated above shall be met. The plan shall provide a detailed installation schedule demonstrating installation of as much of the landscaping as early in the construction process as is feasible in coordination with project construction. The intent of the plan shall be to minimize loss of existing perimeter tree and shrub screening, particularly at the northeast laydown site; and to provide supplemental and replacement plantings as needed to screen staging sites.		N			As Needed					
VIS	**4**	g	Y		A copy of the complaint resolution form report shall be submitted to the CPM within 30 days	N	30	after	Lighting Complaint					

Technical Area	COC Number	Subtask	Deliverable Req.	Description	Verification/Action/Submittal Required	Required Prior to Start of Construction?	Action Days	Submittal Timing	Submittal Trigger Event	Expected Submittal Date	Actual Submittal Date	Compliance Status	Priority (Tier 1, 2, or 3)	Comments
VIS	**5**	a	Y	In order to address potential cumulative visual impacts resulting from I-5 widening, the project owner shall maintain a permanent buffer zone, including the existing vegetative visual screening, on the eastern portion of the CECP site, between the existing NRG fence line and storage tank perimeter road. This measure shall be coordinated with Conditions of Certification LAND-1 and HAZ-8, requiring construction of a tall wall/safety barrier at the future right-of-way. The existing landscape screening within the buffer zone shall be maintained and enhanced per Condition of Certification VIS-2 after start of project construction. The buffer zone shall be kept available to maintain existing visual screening, accommodate future possible I-5 widening to the extent necessary, and to accommodate both future hazard protection features and visual screening. In addition, the **project owner** shall work with Caltrans to develop a Cumulative Impact Mitigation Plan for accommodating the widening project while maintaining visual screening of the CECP to acceptable levels **over the long term following I-5 widening**. This plan could include complete or partial avoidance of the CECP site, complete or partial berm retention or replacement, complete or partial retention of existing landscape screening, and replacement screening as needed. The objective of the plan shall be to accommodate the I-5 widening within the designated buffer zone to the extent that encroachment is unavoidable, while providing needed hazard protection and acceptable levels of visual screening of the power plant.	At the earliest feasible time, the project owner shall coordinate with Caltrans to discuss specific hazard and visual mitigation strategies. The project owner shall work with Caltrans to devise a specific Cumulative Impact Mitigation Plan for accommodating hazard protection and visual screening, to be implemented at the time of I-5 widening.	N	N/A	earliest feasible time	I-5 Widening DEIS					
VIS	**4**	d	N		If, after inspection, the CPM notifies the project owner that modifications to the lighting are needed, within 30 days of receiving that notification the project owner shall implement the modifications and notify the CPM that the modifications have been completed and are ready for inspection.	N	30	after	Modification of Lighting					
VIS	**4**	f	N		The project owner shall notify the CPM within 48 hours after completing implementation of the proposal.	N	48 hrs	within receipt	Lighting Complaint					
VIS	**5**	c		To the extent that it is necessary to plant or maintain vegetative screening on project lands transferred to Caltrans in furtherance of the widening project, the project owner shall be responsible for the costs of doing so, whether by reimbursement to Caltrans, performing the work itself under agreement with Caltrans or a third party (such as the City of Carlsbad) contracting with Caltrans, or some other means.	The project owner shall submit any required revisions within 30 days of notification by the CPM. The project owner shall not implement the plan until receiving approval from the CPM.	N	30	after	Revisions to Cumulative Impact Mitigation Plan					
VIS	**5**	e	N		The project owner shall notify the CPM within seven days after implementing the approved plan that the plan is ready for inspection.	N	7	after	Implementation of plan					
WASTE	**4**	a	Y	If potentially contaminated soil is identified during site characterization, demolition, excavation, or grading at either the proposed site or linear facilities, as evidenced by discoloration, odor, detection by handheld instruments, or other signs, the professional engineer or professional geologist shall inspect the site, determine the need for sampling to confirm the nature and extent of contamination, and provide a written report to the project owner, authorized representatives of the SDCDEH, and the CPM stating the recommended course of action. Depending on the nature and extent of contamination, the professional engineer or professional geologist shall have the authority to temporarily suspend construction activity at that location for the protection of workers or the public. If, in the opinion of the professional engineer or professional geologist, significant remediation may be required, the project owner shall contact the authorized representatives of the SDCDEH, and the CPM for guidance and possible oversight.	The project owner shall submit any final reports filed by the professional engineer or professional geologist to the authorized representatives of the SDCDEH, and the CPM for approval within 5 days of their receipt.	N	5	after	Discovery of Contaminated Soil	2015	7/8/15; 9/16/15; 10/30/15		1	Submittal of assessment reports
WASTE	2		Y	Prior to removal of the aboveground storage tanks (ASTs), the project owner shall complete a SDCDEH Hazardous Waste Tank Certification form and obtain a permit from the City of Carlsbad Fire Department. Prior to demolition of the ASTs, SDCDEH and the Fire Department must acknowledge the form is complete, and provide written concurrence that the information presented is adequate to comply with permitting requirements for removal. This information and written concurrence must be submitted to the CPM for review and approval.	At least 60 days prior to commencement of site mobilization, the project owner shall provide the form and permits to remove the ASTs to the CPM for review and approval. The project owner shall inform the CPM via the monthly compliance report, of the date when all ASTs were removed from the site.	Y	60	prior to	Site Mobilization	September 26, 2014	10/22/2014, 7/1/15	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15.
WASTE	**7**	a	N	The project owner shall obtain a hazardous waste generator identification number from the United States Environmental Protection Agency prior to generating any hazardous waste during construction and operations.	The project owner shall keep a copy of the identification number on file at the project site and provide the number to the CPM in the next Monthly Compliance Report.	Y	N/A	prior to	Construction	11/15	12/14/2015	Completed		Application filed with EPA/DTSC. EPA ID # Issued November 2015
WASTE	**9**	c	Y		The project owner shall also document in each Annual Compliance Report the actual volume of wastes generated and the waste management methods used during the year; provide a comparison of the actual waste generation and management methods used to those proposed in the original Operation Waste Management Plan; and update the Operation Waste Management Plan as necessary to address current waste generation and management practices.	N	N/A	Annual	Annual Compliance Report	February 28, 2018				

Technical Area	COC Number	Subtask	Deliverable Req.	Description	Verification/Action/Submittal Required	Required Prior to Start of Construction?	Action Days	Submittal Timing	Submittal Trigger Event	Expected Submittal Date	Actual Submittal Date	Compliance Status	Priority (Tier 1, 2, or 3)	Comments
WASTE	**9**	a	Y	The project owner shall prepare an Operation Waste Management Plan for all wastes generated during operation of the facility and shall submit the plan to the CPM for review and approval. The plan shall contain, at a minimum, the following: • a detailed description of all operation and maintenance waste streams, including projections of amounts to be generated, frequency of generation, and waste hazard classifications; • management methods to be used for each waste stream, including temporary on-site storage, housekeeping and best management practices to be employed, treatment methods and companies providing treatment services, waste testing methods to assure correct classification, methods of transportation, disposal requirements and sites, and recycling and waste minimization/source reduction plans; • all information and reports of conversations with the local Certified Unified Program Agency and the Department of Toxic Substances Control regarding any waste management requirements necessary for project activities. Copies of all required waste management permits, notices, and/or authorizations shall be included in the plan and updated as necessary; • a detailed description of how facility wastes will be managed and any contingency plans to be employed, in the event of an unplanned closure or planned temporary facility closure; and • a detailed description of how facility wastes will be managed and disposed upon closure of the facility.	The project owner shall submit the Operation Waste Management Plan to the CPM for approval at least 30 days prior to the start of project operation.	N	30	prior to	Commercial Operation	September 12, 2018	9/21/2018	Completed		
WASTE	**12**	b	Y		A SMP summary shall be submitted to CPM and SDCDEH within 25 days of completion of any demolition-associated earthwork.	N	25	After	Earthwork	As Needed	Submitted in 2015		1	CPM approved all soils reports submittals 8/2/16.
WASTE	**10**		N	[Deleted]	N/A	N			NA	NA	NA	NA	NA	
WASTE	**9**	b	Y		The project owner shall submit any required revisions to the CPM within 20 days of notification from the CPM that revisions are necessary.	N	20	after	Commercial Operation	TBD				
WASTE	**6**		Y	Prior to demolition of existing structures, the project owner shall complete and submit a copy of a San Diego County Air Pollution Control District (District) Asbestos Renovation and Demolition Notification Form to the CPM and the District for review. The project owner shall remove all asbestos-containing material (ACM) from the site prior to demolition.	At least 10 days prior to commencement of structure demolition, the project owner shall provide the Asbestos Renovation and Demolition Notification Form to the CPM and to the District for review. The project owner shall inform the CPM via the monthly compliance report, of the date asbestos is removed.	N	10	prior to	Demolition		9/2/2014; 7/9/15; 4/17/17	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12-9-14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remedation letter 8-31-15. Approved electrical control bldg 4/17/17.
WASTE	**12**	a	Y	The project owner shall prepare and submit to the CPM and SDCDEH, a Soils Management Plan (SMP) prior to demolition of Tanks 1, 2, or 4. The SMP must be prepared by a California Professional Geologist, or a California Registered Civil Engineer with sufficient experience in hazardous waste management. The SMP shall be updated as needed to reflect changes in laws, regulations or site conditions. A SMP summary report, which includes all analytical data and other findings, must be submitted once the earthwork has been completed. Topics covered by the SMP shall include, but not be limited to: • Land use history, including description and locations of known contamination. • The nature and extent of previous investigations and remediation at the site. • The nature and extent of unremediated areas at the site. • A listing and description of institutional controls, such as the city's excavation ordinance and other local, state, and federal regulations and laws that will apply to the project. • Names and positions of individuals involved with soils management and their specific role. • An earthwork schedule. • A description of protocols for the investigation and evaluation of previously unidentified contamination that may be potentially encountered, including any temporary and permanent controls that may be required to reduce exposure to onsite workers, visitors, and the public. • Hazardous waste determination and disposal procedures for known andpreviously unidentified contamination. • Requirements for site specific techniques at the site to minimize dust, manage stockpiles, run-on and run-off controls, waste disposal procedures, etc. • Copies of relevant permits or closures from regulatory agencies The SMP may cite to Phase I Environmental Site Assessment (ESA) in lieu of the above requirements for the Encina Power Station where such information is contained in the Phase I Investigation.	At least 45 days prior to demolition of Tanks 1, 2 or 4 the project owner shall submit the applicable SMP to the CPM for review and approval. All demolition-associated earthworks at the site, approved subsequent to the Final Commission Decision authorizing this condition shall conform to the SMP.	N	45	prior to	Demolition of ASTs 1, 2, and 4		10/29/15; 11/30/2015; 12/14/15; and 5/20/16	Completed		Start of Construction Approved 6/6/16.
WASTE	**8**		Y/N	Upon becoming aware of any impending waste management-related enforcement action by any local, state, or federal authority, the project owner shall notify the CPM of any such action taken or proposed to be taken against the project itself, or against any waste hauler or disposal facility or treatment operator with which the owner contracts.	The project owner shall notify the CPM in writing within 10 days of becoming aware of an impending enforcement action. The CPM shall notify the project owner of any changes that will be required in the way project-related wastes are managed.	N	10	after	Impending Enforcement Action					
WASTE	**4**	b			The project owner shall notify the CPM within 24 hours of any orders issued to halt construction.	N	24 hours	after	Construction Halted					

Technical Area	COC Number	Subtask	Deliverable Req.	Description	Verification/Action/Submittal Required	Required Prior to Start of Construction?	Action Days	Submittal Timing	Submittal Trigger Event	Expected Submittal Date	Actual Submittal Date	Compliance Status	Priority (Tier 1, 2, or 3)	Comments
WASTE	**11**		Y	The project owner shall ensure that all spills or releases of hazardous substances, materials, or waste are reported, cleaned up, and remediated as necessary, in accordance with all applicable federal, state, and local requirements.	The project owner shall document all unauthorized releases and spills of hazardous substances, materials, or wastes that occur on the project property or related pipeline and transmission corridors. The documentation shall include, at a minimum, the following information: location of release; date and time of release; reason for release; volume released; amount of contaminated soil/material generated; how release was managed and material cleaned up; if the release was reported; to whom the release was reported; release corrective action and cleanup requirements placed by regulating agencies; level of cleanup achieved and actions taken to prevent a similar release or spill; and disposition of any hazardous wastes and/or contaminated soils and materials that may have been generated by the release. Copies of the unauthorized spill documentation shall be provided to the CPM within 30 days of the date the release was discovered.	N	30	after	Release/Spill of Haz Mat	As Needed	3/17/2017; 6/22/17; 3/16/18	Active		On going during construction and demolition
WASTE	1		Y	The project owner shall ensure that the CECP site is properly characterized and remediated as necessary pursuant to the Corrective Action Plan reviewed and approved by the San Diego County Department of Environmental Health (SDCDEH). In no event shall project construction commence in areas requiring characterization and remediation until SDCDEH and the CPM have determined that all necessary remediation has been accomplished.	At least 30 days prior to remediation the project owner shall submit to the CPM for review and approval copies of all pertinent correspondence, work plans, agreements, and authorizations between the project owner and SDCDEH regarding the Corrective Action Plan requirements and activities at the project site. At least 60 days prior to the start of site mobilization, the project owner shall provide to the CPM for review and approval written notice from SDCDEH that the site has been investigated and remediated as necessary in accordance with the Correction Action Plan.	Y	30	prior to	Remediation		Multiple Correspondence	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15. Start of Construction Approved 6/6/16.
WASTE	3		Y	The project owner shall provide the résumé of an experienced and qualified professional engineer or professional geologist, who shall be available for consultation during site characterization (if needed), demolition, excavation, and grading activities, to the CPM for review and approval. The résumé shall show experience in remedial investigation and feasibility studies. The professional engineer or professional geologist shall be given full authority by the project owner to oversee any earth moving activities that have the potential to disturb contaminated soil.	At least 30 days prior to the start of site mobilization, the project owner shall submit the résumé to the CPM for review and approval.	Y	30	prior to	Site Mobilization		7/29/2014	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15.
WASTE	5	a		The project owner shall prepare a Demolition and Construction Waste Management Plan for all wastes generated during demolition and construction of the facility and shall submit the plan to the CPM for review and approval. The plan may be submitted in two sections: Demolition activities and Construction activities. Both sections of the plan shall contain, at a minimum, the following: • a description of all demolition and construction waste streams, including projections of frequency, amounts generated, and hazard classifications; and • management methods to be used for each waste stream, including temporary on-site storage, housekeeping and best management practices to be employed, treatment methods and companies providing treatment services, waste testing methods to assure correct classification, methods of transportation, disposal requirements and sites, and recycling and waste minimization/source reduction plans. • a reuse/recycling Debris Management Plan for demolition and construction materials that meets or exceeds the waste diversion goals established by the Integrated Waste Management Compliance Act (Pub. Resources Code, § 41780 et seq.) and CALGreen Title 24, California Code of Regulations, Part 11sections 4.408, 5.408, 301.1.1 and 301.3.	The project owner shall submit the demolition section of the Demolition and Construction Waste Management Plan to the CPM for approval at least 30 days prior to the initiation of demolition activities at the site. The project owner shall submit to the CPM copies of the documentation required by CALGreen Title 24, California Code of Regulations, Part 11 section 5.408.1.4.	Y	30	prior to	Demolition		8/7/2015; 12/29/15	Completed		Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15. Start of Construction Approved 6/6/16.
WORKER SAFETY	1	b	Y	The project owner shall submit to the Compliance Project Manager (CPM) a copy of the Project Demolition and Construction Safety and Health Program containing the following: 1. a Demolition and Construction Personal Protective Equipment Program; 2. a Demolition and Construction Exposure Monitoring Program; 3. a Demolition and Construction Injury and Illness Prevention Program; 4. a Demolition and Construction Emergency Action Plan; and 5. a Demolition and Construction Fire Prevention Plan. 6. an Encina Power Statin Demolition Plan. The Personal Protective Equipment Program, the Exposure Monitoring Program, and the Injury and Illness Prevention Program shall be submitted to the CPM for review and approval concerning compliance of the program with all applicable safety orders. The Demolition and Construction Emergency Action Plan, the Demolition and Construction Fire Prevention Plan, and an Encina Power Station Demolition Plan shall be submitted to the Carlsbad Fire Department for review and comment prior to submittal to the CPM for approval.	At least 30 days prior to the start of tank demolition, the project owner shall submit to the CPM for review and approval a copy of the Project Demolition and Construction Safety and Health Program. The project owner shall provide a copy of a letter to the CPM from the Carlsbad Fire Department stating the fire department's comments on the Demolition and Construction Fire Prevention Plan and Emergency Action Plan. At least 30 days prior to the start of the demolition of the Encina Power Station, the project owner shall submit to the CPM for review and approval a copy of the Encina Power Station Demolition Plan. The project owner shall provide to the CPM a copy of a letter from the Carlsbad Fire Department (CDF) stating the fire department's comments on the Encina Power Station Demolition Plan.	Y	30	prior to	Tank Demolition	September 26, 2014	10/17/2014; 7/24/15; 1//14/2016	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15. Approved by Start of Berm Demolition 1/15/16. Start of Construction Approved 6/6/16.
WORKER SAFETY	**10**	a	Y	The project owner shall prepare a Transformer Fire Protection Plan which shall evaluate any feasible methods that can be used to prevent, contain, and/or control a transformer fire, including the use of new dielectric fluids, pressure sensors with shut-down capability, dissolved gas analyzers, use of compressed-air-foam for fire suppression, on-site storage of suppressants, and sub-surface vaults to contain spilled/leaked dielectric fluids. The project owner shall submit this Plan to the CBO for information, to the Carlsbad Fire Department for review and comment, and to the CPM for review and approval.	At least 60 days before the arrival of a transformer on site, the project owner shall submit a copy of the Transformer Fire Protection Plan to the CBO for information, to the Carlsbad Fire Department for review and comment, and to the CPM for review and approval	N	60	prior to	Arrival of Transformer	July 7, 2017	6/20/2017	Completed		Submitted to CBO and City of Carlsbad FD 6/21/2017; CPM approved 9/14/17 and 12/14/17

Carlsbad Energy Center Project
Pre-Construction Compliance Matrix: July 2014

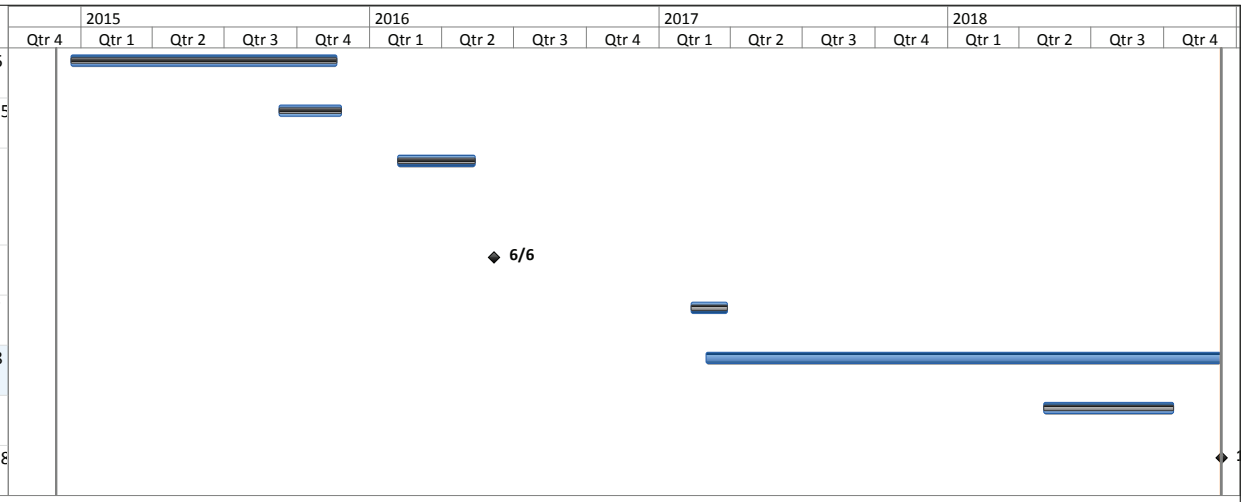
Technical Area	COC Number	Subtask	Deliverable Req.	Description	Verification/Action/Submittal Required	Required Prior to Start of Construction?	Action Days	Submittal Timing	Submittal Trigger Event	Expected Submittal Date	Actual Submittal Date	Compliance Status	Priority (Tier 1, 2, or 3)	Comments
WORKER SAFETY	1	a	Y	The project owner shall submit to the Compliance Project Manager (CPM) a copy of the Project Demolition and Construction Safety and Health Program containing the following: 1. a Demolition and Construction Personal Protective Equipment Program; 2. a Demolition and Construction Exposure Monitoring Program; 3. a Demolition and Construction Injury and Illness Prevention Program; 4. a Demolition and Construction Emergency Action Plan; and 5. a Demolition and Construction Fire Prevention Plan. 6. an Encina Power Statin Demolition Plan. The Personal Protective Equipment Program, the Exposure Monitoring Program, and the Injury and Illness Prevention Program shall be submitted to the CPM for review and approval concerning compliance of the program with all applicable safety orders. The Demolition and Construction Emergency Action Plan, the Demolition and Construction Fire Prevention Plan, and an Encina Power Station Demolition Plan shall be submitted to the Carlsbad Fire Department for review and comment prior to submittal to the CPM for approval.	At least 30 days prior to the start of tank demolition, the project owner shall submit to the CPM for review and approval a copy of the Project Demolition and Construction Safety and Health Program. The project owner shall provide a copy of a letter to the CPM from the Carlsbad Fire Department stating the fire department's comments on the Demolition and Construction Fire Prevention Plan and Emergency Action Plan. At least 30 days prior to the start of the demolition of the Encina Power Station, the project owner shall submit to the CPM for review and approval a copy of the Encina Power Station Demolition Plan. The project owner shall provide to the CPM a copy of a letter from the Carlsbad Fire Department (CDF) stating the fire department's comments on the Encina Power Station Demolition Plan.	Y	30	prior to	Construction	11/15	7/24/15; 1/11/16; 1/18/18	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15. Approved by Start of Berm Demolition 1/15/16. Start of Construction Approved 6/6/16.
WORKER SAFETY	3	b	Y	The project owner shall provide a site Demolition Safety Supervisor (DSS) and a Construction Safety Supervisor (CSS) who, by way of training and/or experience, ~~is~~ are knowledgeable of tank demolition, power plant construction activities and relevant laws, ordinances, regulations, and standards; ~~is~~ are capable of identifying workplace hazards relating to the demolition and/or construction activities; and has authority to take appropriate action to assure compliance and mitigate hazards. The DSS or CSS shall: 1. have overall authority for coordination and implementation of all occupational safety and health practices, policies, and programs; 2. assure that the safety program for the project complies with Cal/OSHA and federal regulations related to power plant projects; 3. assure that all demolition, construction and commissioning workers and supervisors receive adequate safety training; 4. complete accident and safety-related incident investigations and emergency response reports for injuries and inform the CPM of safety-related incidents; and 5. assure that all the plans identified in Conditions of Certification Worker Safety-1 and -2 are implemented.	At least 30 days prior to the start of tank demolition, the project owner shall submit to the CPM the name and contact information for the Demolition Safety Supervisor (DSS) and a Construction Safety Supervisor (CSS). The contact information of any replacement DSS or CSS shall be submitted to the CPM within one business day. The DSS and CSS shall submit in the Monthly Compliance Report a monthly safety inspection report to include: 1. record of all employees trained for that month (all records shall be kept on site for the duration of the project); 2. summary report of safety management actions and safety-related incidents that occurred during the month; 3. report of any continuing or unresolved situations and incidents that may pose danger to life or health; and 4. report of accidents and injuries that occurred during the month.	Y	30	prior to	Construction	11/15	10/15/2015	Completed		Start of Construction Approved 6/6/16.
WORKER SAFETY	6	a	Y	The project owner shall ensure that the below-grade site fire lanes, access points, and ramps are constructed so that at least two access points through the site perimeter and into the below-grade power plant site are available to the CFD and other emergency response providers. The access roads, below-grate perimeter road, and ramps shall be no less than 28 feet wide and with grades no greater than 10 percent. The project owner shall guarantee that the two fire access ramps down into the project site, the upper rim-road, and the fire lane around the perimeter of the below-grade site, are free and clear of all vehicles, equipment, or any other object (mobile or stationary) at all times and that the boundaries or curbs of the ramps and lanes are painted red and contain signage to indicate that they are fire roads and lanes on which parking is not allowed. The final blueprints for the site shall be submitted at least 30 days prior to the start of CECP Construction to the Carlsbad Fire Department for review and comment and to the CPM for review and approval. A copy of the transmittal letter to the Carlsbad Fire Department shall also be sent to the CPM. Any requested changes in the fire lanes, upper rim road, ramps, and access points shall be made is writing to the CPM and the CBO for review and approval after obtaining comments from the CFD.	At least 30 days prior to the start of Phase II, CECP Construction, the project owner shall submit a copy of the final site blueprints to the Carlsbad Fire Department for review and comments and to the CPM for review and approval. The project owner shall also submit to the CPM a copy of the transmittal letter to the CFD.	Y	30	prior to	Construction	11/15	2/24/2016	Completed		CFD approval 3/7/16; CPM Approval 6/6/16.
WORKER SAFETY	**6**	b	Y		At least 60 days prior to the start of commissioning or the arrival on-site of any liquid fuel, natural gas, or hazardous material, whichever occurs first, the project owner shall submit to the CBO for information, to the Carlsbad Fire Department for review and comment, and to the CPM for review and approval, a signed declaration along with photographic evidence that the access ramps and fire lanes are guaranteed to always be clear and unobstructed and that signs and red paint have been placed in the appropriate locations.		60	prior to	Commissioning and Nat Gas/Haz Mat Delivery	October 2, 2017	9/18/2017	Completed		Submitted to the CPM 9/18/17 and CFD 9/20/17. CPM approved 10/16/17
WORKER SAFETY	**11**		Y	The project owner shall ensure that the primary source of fire protection water is the city of Carlsbad water system and that the on-site raw water storage tank is the back-up supply.	At least 60 days before commencing commissioning, the project owner shall submit to the Carlsbad Fire Department for review and comment, and to the CPM for review and approval engineering drawings showing the source and piping of the primary and back-up fire protection water supplies and a statement that the primary supply is the city of Carlsbad water system.	N	60	prior to	Commissioning	February 27, 2018	7/26/2017	Completed		Approved 8/4/17
WORKER SAFETY	**2**		Y	The project owner shall submit to the CPM a copy of the Project Operations and Maintenance Safety and Health Program containing the following: 1. an Operation Injury and Illness Prevention Plan; 2. an Emergency Action Plan; 3. Hazardous Materials Management Program; 4. Fire Prevention Plan (8 Cal Code Regs., § 3221); and 5. Personal Protective Equipment Program (8 Cal Code Regs., §§ 3401—3411). The Operation Injury and Illness Prevention Plan, Emergency Action Plan, and Personal Protective Equipment Program shall be submitted to the CPM for review and comment concerning compliance of the programs with all applicable safety orders. The Fire Prevention Plan and the Emergency Action Plan shall also be submitted to the Carlsbad Fire Department for review and comment.	At least 30 days prior to the start of first-fire or commissioning, the project owner shall submit to the CPM for approval a copy of the Project Operations and Maintenance Safety and Health Program. The project owner shall provide **to the CPM** a copy of a letter from the Carlsbad Fire Department stating the fire department's comments on the Operations Fire Prevention Plan and Emergency Action Plan.	N	30	prior to	First Fire	April 3, 2018	4/3/2018	Completed		Submitted to the CPM and CFD 4/3/18.
WORKER SAFETY	12		Y	The owner shall ensure that the compressor building at the modified amended CECP will comply with NFPA requirements for compressor enclosures and that it will also comply with the requirement set forth in 40 CFR Sections 163 through 171 regarding fire and explosion protection systems.	At least 30 days prior to the start of construction mobilization, the project owner shall submit to the CPM and the CFD for review and for approval by the CPM, documentation of plans for the compressor enclosure at the modified amended CECP demonstrating compliance with the condition described above.	Y	30	prior to	Construction Mobilization	11/15; 9/9/16	2/19/2016; 6/6/2016; 9/6/16; 6/28/17; 6/25/18	Completed	1	CPM requested additional information on 3/8/16 and 9/13/16. Additional Information Submitted 9/6/16. Final design submitted 6/28/17. CPM approved 12/14/17. Revised Plan Submitted 6/25/18
WORKER SAFETY	**8**		N	[Deleted]	N/A	N	NA	NA	NA	NA				

Technical Area	COC Number	Subtask	Deliverable Req.	Description	Verification/Action/Submittal Required	Required Prior to Start of Construction?	Action Days	Submittal Timing	Submittal Trigger Event	Expected Submittal Date	Actual Submittal Date	Compliance Status	Priority (Tier 1, 2, or 3)	Comments
WORKER SAFETY	**7**		Y	The project owner shall place a barrier of sufficient strength and height at the eastern fence line of the project at the widened I-5 Right-of-Way so as to prevent a runaway car or semi-trailer truck from piercing the barrier and going over the edge and down into the power plant site. This barrier shall also serve to prevent line-of-sight viewing of the power plant site from the shoulder of I-5. In designing this barrier, the project owner shall consult with Caltrans and then submit a final plan to the CPM for review and approval. The project owner may also negotiate cost-sharing of this barrier with Caltrans and if the project owner chooses to do so, the cost-sharing contract with Caltrans shall be submitted to the CPM for review and approval.	At least 60 days prior to the start of I-5 widening activities that encroach onto the project site, the project owner shall submit a copy of the final plans for the barrier and any cost-sharing contract to the CPM for review and approval.	N	60	prior to	I-5 Widening	TBD			1	Dependent on CalTrans Progress
WORKER SAFETY	**10**	b	Y		Not later than 30 days after submitting the Plan for review, the project owner shall submit to the CPM for approval a final plan that incorporates comments and suggestions from the CPM and the CFD.	N	30	after	Submittal of Transformer Fire Protection Plan			Completed		Pending comments from CFD & CPM
WORKER SAFETY	3	a	Y	The project owner shall provide a site Demolition Safety Supervisor (DSS) and a Construction Safety Supervisor (CSS) who, by way of training and/or experience, ~~is~~ are knowledgeable of tank demolition, power plant construction activities and relevant laws, ordinances, regulations, and standards; ~~is~~ are capable of identifying workplace hazards relating to the demolition and/or construction activities; and has authority to take appropriate action to assure compliance and mitigate hazards. The DSS or CSS shall: 1. have overall authority for coordination and implementation of all occupational safety and health practices, policies, and programs; 2. assure that the safety program for the project complies with Cal/OSHA and federal regulations related to power plant projects; 3. assure that all demolition, construction and commissioning workers and supervisors receive adequate safety training; 4. complete accident and safety-related incident investigations and emergency response reports for injuries and inform the CPM of safety-related incidents; and 5. assure that all the plans identified in Conditions of Certification Worker Safety-1 and -2 are implemented.	At least 30 days prior to the start of tank demolition, the project owner shall submit to the CPM the name and contact information for the Demolition Safety Supervisor (DSS) and a Construction Safety Supervisor (CSS). The contact information of any replacement DSS or CSS shall be submitted to the CPM within one business day. The DSS and CSS shall submit in the Monthly Compliance Report a monthly safety inspection report to include: 1. record of all employees trained for that month (all records shall be kept on site for the duration of the project); 2. summary report of safety management actions and safety-related incidents that occurred during the month; 3. report of any continuing or unresolved situations and incidents that may pose danger to life or health; and 4. report of accidents and injuries that occurred during the month.	Y	30	prior to	Tank Demolition		8/20/2014 Ph I; 10/15/15 Ph II; 4/12/17 Ph II	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15.
WORKER SAFETY	4		Y	The project owner shall make payments to the Chief Building Official (CBO) for the services of a Safety Monitor based upon a reasonable fee schedule to be negotiated between the project owner and the CBO. Those services shall be in addition to other work performed by the CBO. The Safety Monitor shall be selected by and report directly to the CBO and will be responsible for verifying that the Construction Safety Supervisor, as required in Condition of Certification Worker Safety-3, implements all appropriate Cal/OSHA and Energy Commission safety requirements. The Safety Monitor shall conduct on-site (including linear facilities) safety inspections at intervals necessary to fulfill those responsibilities and shall do this during the period of tank demolition/removal, construction of the CECP, and demolition/removal of the EPS.	At least 30 days prior to the start of tank demolition, the project owner shall provide proof of its agreement to fund the Safety Monitor services to the CPM for review and approval.	Y	30	prior to	Tank Demolition		11/24/2014, 1/11/16	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15.
WORKER SAFETY	5		Y		At least **30** days prior to the start of tank demolition the project owner shall submit to the CPM proof that a portable automatic external defibrillator (AED) exists on site and a copy of the training and maintenance program for review and approval.	Y	30	prior to	Tank Demolition		8/29/2014	Completed		Approved by Start of Tank Demolition Letter from CPM, received on 12/9/14 for tanks 5, 6, and 7 Demolition. Approved by Start of tank demolition 1, 2, and 4, and soil remediation letter 8/31/15.
WORKER SAFETY	**9**		Y	The project owner shall maintain the current dirt access road located on the western perimeter fence line in a sufficient state so as to serve as an emergency response road. In no event shall the project owner grant or dedicate an easement for the Coastal Rail Trail east of the Rail Corridor on the CECP site.	At least 30 days prior to the start of Phase II, CECP construction, the project owner shall submit to the CPM for review and approval a copy of the final plans for maintaining this access road.	Y	30	prior to	Construction		8/15/2014 Ph I, 10/30/15 Ph II	Completed		Start of Construction Approved 6/6/16.

ATTACHMENT B

COMPLIANCE-6
PROJECT SCHEDULE
NOVEMBER 2018

ID	Task Name	Start	Finish
1	Demolish Fuel Oil Tanks	Fri 12/19/14	Thu 11/19/15
2	Remediate Soil in Tank Basins	Tue 9/8/15	Wed 11/25/15
3	Demolish Below Grade Structures, Remove Fuel Oil Tank Farm Intermediate Berms	Fri 2/5/16	Thu 5/12/16
4	Start of Construction Approval	Mon 6/6/16	Mon 6/6/16
5	Mobilization	Fri 2/10/17	Mon 3/27/17
6	Construction	Wed 3/1/17	Tue 12/11/18
7	Commissioning	Wed 5/2/18	Fri 10/12/18
8	Commerical Operation Date	Wed 12/12/18	Wed 12/12/18



Phase I Demolition and Remediation 100% Complete
Phase II Construction 99.9% and Commissioning 100% Complete

Carlsbad Energy Center Project
Date: Wed 12/12/18

Task	Project Summary	Inactive Milestone	Manual Summary Rollup	Deadline
Split	External Tasks	Inactive Summary	Manual Summary	Progress
Milestone	External Milestone	Manual Task	Start-only	
Summary	Inactive Task	Duration-only	Finish-only	

ATTACHMENT C

AQ-SC3
AIR QUALITY CONSTRUCTION
COMPLIANCE SUMMARY
NOVEMBER 2018

Carlsbad Energy Center LLC
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Air Quality Construction Compliance Summary

Amended Carlsbad Energy Center Project, Phase II, San Diego County, CA (07-AFC-06C)

PREPARED FOR: Carlsbad Energy Center LLC

PREPARED BY: Ryan Goerl, NRG Energy, Inc.

DATE: December 14, 2018

COMPLIANCE PERIOD: November 2018

This compliance memorandum summarizes the activities conducted in November 2018 to demonstrate compliance with the approved *Air Quality Construction Mitigation Plan (AQCMP) for Phase II of the Amended Carlsbad Energy Center Project* (Amended CECP) (CEC, 2015). The Amended CECP Phase I AQCMP covers the demolition/removal of Tanks 1, 2, and 4 (including removal of associated aboveground pipelines and equipment), as needed soil remediation in the tank basins for Tanks 1, 2, 4, 5, 6 and 7, and berm removal between Tanks 4 and 5, 5 and 6, and 6 and 7. The Amended CECP Phase II AQCMP covers the construction phase of work. The California Energy Commission (CEC) compliance project manager (CPM) approved the Amended CECP to start work on June 9, 2016.

The ASTs, 1, 2, and 4 demolition and berm removal were completed May 2016. Mobilization for Phase II of the project started on February 10, 2017.

Fugitive Dust Compliance Measures

For this compliance period during Phase II of the CECP the following compliance measures are being implemented and monitored onsite using a compliance checklist:

- Observance of a visible dust plume
- Additional control measures implemented to reduce a visible dust plume
- Complaints filed with the San Diego Air Pollution Control District
- Deviations from the AQCMP

On the occasions that small amounts of dust were observed on the haul road, road watering frequency was increased. These increased control measures were successful in mitigating visible dust. No deviations from conditions AQ-SC3 or AQ-SC4 occurred during the compliance period. No complaints were filed with the San Diego Air Pollution Control District.

Fugitive dust control measures prescribed in the AQCMP are monitored daily and recorded on checklists, which are included in Attachment A of this report.

Diesel Equipment Compliance Measures

All diesel-fueled engines subject to the AQCMP and used during this compliance period that met the diesel equipment compliance measures were tagged by the Air Quality Construction Mitigation Manager to indicate the equipment are approved for use onsite. The equipment tagged during this compliance period are included in Table 1.

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The following compliance measures were implemented during this compliance period:

- Equipment with diesel engines with a rating of 50 horsepower (hp) or higher shall meet Tier 4/4i emissions standards. No exemptions were requested for this compliance period.
- Equipment is maintained in accordance with manufacturer's recommendations.
- Equipment idling limited to 5 minutes or less to the extent practical.
- Equipment is labeled in accordance with Air Resources Board requirements.
- Equipment will employ electric motors where feasible.

Equipment onsite and used during this compliance period are being recorded and are listed in Table 2. Documentation confirming that equipment used for ten (10) days or more are Tier 4 or Tier 4i, along with the appropriate letter from the equipment owner confirming maintenance is performed as required for the equipment listed in Table 2, are included as Attachment B to this memorandum.

References

California Energy Commission (CEC), 2015. *Air Quality Construction Mitigation Plan, Phase I, Amended Carlsbad Energy Center Project, (07-AFC-06C)*, Submitted on July 15, 2015; Approved with Amendment, Correspondence from Jonathan Fong, Compliance Project Manager CEC to Scott Seipel, August 18, 2015.

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Table 1
Diesel Equipment
AQCMP 07-AFC-06C

Date Arrived (Removal Date)	CARB ID	S/N	Equipment	Engine Data	Diesel hp	Tier	Equipment Owner (Renter)
2/10/17	JA8G78	160059780	JLG Rough Terrain Forklift	Cummins, ECEXL04.5AAE, QSB4.5, 4.5L, SN: 73659084	130	4I	ARB, ARB
2/10/17	BX3T54	JJGN585SNLEC705659	Case 580 SN	FPT Industrial SPA, EFPXL03.4ADD, F5HFL413C*A, 3.4L, SN: 000215914	97	4I	D+S Backhoe Service, ARB
2/27/17	HK3B47	XR1255041692140	Xtreme/XR12 55	FPT, FFPXL03.4FSD, 854F-E34TAN, 3.4L, SN: JU82679-L026122A	122	4F	AHERN, ARB
3/8/17 (11/22/18)	MR5L43	160079386	JLG SKYTRACK 10054	Cummins, GCEXL03.8AAA, QSF3.8 3.8L, SN: 89877752	74	4	United Rentals, Morrow Meadows
4/17/17	HX8D33	330677	Ottowa TJ5000 Yard Goat	Cummins, CCEXL06.7AAH, 4x2, 6.7L, SN: 7340259	173.00	4I	ARB, ARB
6/27/17	VC6G63	XR1255031693102	Xtreme/XR12 55	FPT, FFPXL03.4FSD, 854F-E34TA, 3.4L, SN: JU82679-L025417	122	4	ARB, ARB
8/7/17	MJ7P67	235860	Grove 880 RT Crane	Cummins, HCEXL06.7AAK, QSB6.7, 6.7L, SN: 74125363	275	4F	ARB, ARB
9/8/17	BY5V68	07N02799/A40032	Cat 430F Backhoe	Perkins, CPXL04.4MK1, 430F/75, 4.4L, SN: F2F01333	109	4I	Cut n Core, ARB
10/4/17	RA3E66	XR3034-11-17069362	Xtreme Rough Terrain Forklift	Cummins, HCEXL04.5AAH, QSB4.5, 4.5L, SN: 74093747	173	4F	ARB, ARB

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10/17/17	WT4D33	CR500483	Caterpillar 305.5E2 Excavator	Kubota, FKBXL02.4GND, C2.4, 2.4L, SN:7FM3896	44.1	4F	Quinn, ARB
10/26/17	KD3R57	BYF02070	Caterpillar Skidsteer 246D	Kubota, FKBXL03.3EKD, C3.3B, 3.3L, SN:8FJ0872	73.25	4F	Cut n Core, PSC/CPC
10/26/17	FM4M47	RKY01262	Cat 303.5E Excavator	Kubota, CKBXL02.4ECD, C1.8, 1.8L, SN: 7CS9661	33.5	4I	Cut n Core, Cut n Core
12/4/17	RL3H39	PF400673	Caterpillar Skip Loader	FPT, HFPXL03.4CDC, C3.4B, 3.4L, SN: CNW06966	73.8	4F	ARB, ARB
2/13/18	AU8F89	0300224700	JLG 860SJ Aerial Lift	Deutz AG, GDZLX02.9020, TD2.9L4, 2.93L, SN: 11936528	67	4F	ARB, ARB
3/5/18	173839	10525556	Portable Generator	Cummins, GXEXL08.9AAL, QSL9-G9, 8.9L, SN: 74003514	433	4F	United Rentals, ARB
6/11/18	XG4L37	0300224701	JLG Aerial Lift 860SJ	Deutz, GDZL02.9020, TD2.9L4, 2.9L, SN: 11937960	67	4	ARB, ARB
6/21/18	BC9X46	TAW05457	CAT Skid Steer Loaders 289D	Kubota, GKBXL03.3EKD, C3.3B, 3.3L, SN: 8GE3197	72.9	4	ARB, ARB
8/30/18 (11/28/18)	RX7A65	1T8210LXCFF893032	JD 210L Skiploader	John Deere, FJDXL04.5305, 4045HT082, 4.5L, SN: PE4045U021942	93	4F	Savala, Ortiz
9/10/18 (11/28/18)	SC5F79	CAT0450FHHJR00305	Caterpillar 450F Backhoe	Perkins, EPKXL04.4MK1, C4.4, 4.4L, SN: C7N22382	127	4I	Savala, Ortiz
9/24/18	BV9L34	Z80134158	Genie Boom Z8060	Deutz AG, CDZXL03.6082, TD2011L04I, 3.619L, SN: 11358896	74	4I	ARB, ARB

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10/1/18	PD9D59	1T8210LXLJF894789	Deere 210L	John Deere Power Systems, HJDXL04.5315, 4045HT096, 4.5L, SN:PE4045U051969	93	4	Lalonde, Lalonde
11/1/18	SK8S74	HJR005694	CAT 450F Backhoe	Perkins, EPKXL04.4MK1, C4.4, 4.4L, SN: C7N36796	127	4	Ortiz, Ortiz
11/20/18 (11/27/18)	JL4A43	5EW00286	CAT Scraper	Caterpillar, ACPXL15.2ESW, C-15, 15.2L, SN: TXG07368	365	3	Ortiz, Ortiz
11/20/18 (11/26/18)	PV8P56	DBC00363	CAT Scraper	Caterpillar, 6CPXL15.2ESK, C-15, 15.2L, SN: LHX10023	365	3	Ortiz, Ortiz
11/20/18 (11/26/18)	EU5K99	100045	Komatsu Loader	Komatsu, FKLX11.0DDC, SAA6D125E-7, 11L, SN: 86109	274	4	Ortiz, Ortiz

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Attachment A
Air Quality Control Checklists

AQCMP or designee name: Rubel Martinez
Date: 4/1/18
AQCMP or designee signature: Jesse Botelin

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily
On Going Requirements

Area Affected:	Requirement:	Implemented (Y/N):	Notes:
Unpaved roads and disturbed areas in project and laydown area	Pre-water worksite before construction begins, and the project site shall be watered as frequently as necessary during construction. The watering frequency may be reduced in periods of precipitation	Y	In Compliance
Unpaved areas	No vehicle shall exceed 10 miles per hour	Y	In Compliance
Construction site entrance	Post visible speed limit signs - Identify location of signs in notes	Y	In Compliance
Construction Eq Vehicle tires	Inspected and washed as necessary to clean off dirt prior to leaving site	Y	In Compliance
Tire washing / cleaning station	Gravel ramps 20 ft in length - Identify location in notes	Y	In Compliance
Unpaved Exits	Gravel or treated to prevent track-out - Identify location in notes	Y	In Compliance
Construction entrance	Enter only through treated entrance roadways unless alternative route approved by CPM	Y	In Compliance
Construction areas adjacent to any paved roadways	Provided with sandbags or other measures in SWPPP to prevent runoff	Y	In Compliance
Paved Areas	Swept at least twice daily (or less during periods of precipitation during active days of construction)	Y	In Compliance
Public Roadway existing construction site	500 feet of public roadway swept visually clean at least twice daily (or less during periods of precipitation) during active construction days or when dirt is visible	Y	In Compliance
Storage areas unactive for more than 10 days	Covered or treated with dust suppressants, and vehicle access will be restricted.	Y	In Compliance
Bulk transport vehicles on public roadways	Cover or wet materials load with at least 2 feet of freeboard	Y	In Compliance
Construction Areas that may be disturbed	Install wind erosions control techniques (such as gravel, windbreaks, water, chemical dust suppressants, and/or vegetation) until soil is stabilized or permanently covered w/ vegetation.	Y	In Compliance
Disturbed areas	Re-Vegetated as soon as possible	Y	In Compliance
Encina Power Station property	Haul trucks used during construction limited to traveling on paved or graveled surfaces at all times	Y	In Compliance

1 The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes will not result upon restarting the activity that caused the shut-down. The owner/operator may appeal to the CPM any directive from the AQCMM or AQCMM Delegate to shut down an activity, provided that the shutdown shall go into effect within one hour of the original determination, unless overruled by the CPM before that time.

2 The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes that could impact visibility on I-5 will not occur upon restarting the activity that caused the shut-down.

Date: 11/1/18 | Terri Botelho | Rubel Martinez

Monitoring for Visible Dust Plumes with the potential to be transported off the project site:

Definition of Areas	Requirement	Specific Location / Area:
Identify Area	200 feet beyond the centerline of the construction of linear facilities	
Identify structures	within 100 feet upwind of any regularly occupied structures	
Identify distance / marker	50 feet upwind of I-5	

Reduce visible dust plumes to comply with CEC COC AQ-SC4 (with the exception of visible emissions within 50 feet upwind of the I-5 freeway)

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Within 15 minutes of making such a determination, require more intensive application of existing method - such as additional soil wetting	WATERED FOR Dust Control AS NEEDED All Day	STARTED @ 5:00AM	680 SNW Road Construction Back Fill
Step 2: If Step 1 fails to result in adequate mitigation within 30 minutes of the original determination, apply additional measures such as application of soil stabilizers, visqueen, or a geotech fabric.	N/A	N/A	N/A
Step 3: If Steps 1 and 2 fail to result in effective mitigation within 1 hour of the original determination, the AQCMM or AQCMM Delegate shall direct a temporary shutdown of the activity causing the emissions. [2]	N/A	N/A	N/A

Reduce visible dust plumes to comply with CEC COC AQ-SC4 within 50 feet upwind of the I-5 freeway

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Immediately cease the activities causing the visible dust plumes if any obscuration of visibility is occurring to drivers on I-5. Direct more intensive application of the existing mitigation methods immediately if the visible plumes are seen within 50 feet of I-5 but are not causing obscuration of visibility to drivers.	N/A	N/A	N/A
Step 2: Direct implementation of additional methods for dust suppression and monitor the start-up and/or continuation of the dust causing activities to ensure that the additional mitigation is effective.	N/A	N/A	N/A
Step 3: Direct a temporary shutdown of the activity causing the emissions if Step 2 specified above fails to result in effective mitigation. [2]	N/A	N/A	N/A

AQCMP or designee name: Rubel Martinez

AQCMP or designee signature: Jerri Botelho

Date: 11/1/18

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily

On Going Diesel Requirements	Date:	Notes:
Complete inventory sheet	11/1/18	In Compliance
Confirm all equipment are ARB tagged on both sides and tags are visible.	11/1/18	In Compliance
Make sure CEC approval tag is located on all equipment used onsite	11/1/18	In Compliance
Documentation of engine tier is on file for any new equipment	11/1/18	In Compliance
Note tier 4 or document retrofit equipment on tier 3 engines, provide other document if not meet these requirements for all engines 50 hp or greater	11/1/18	In Compliance
Monthly include a list of the owner of that equipment and a letter from each owner indicating that equipment has been properly maintained	11/1/18	In Compliance
All diesel heavy construction equipment shall not idle for more than 5 minutes, to the extent practical. Vehicles that need to idle as part of their normal operation (such as concrete trucks) are exempted from this requirement	11/1/18	In Compliance
A list of all other actions taken to control diesel construction related emissions	11/1/18	In Compliance

AQCMP or designee name: Rubal Martinez
Date: 11/2/17
AQCMP or designee signature: Jesus Botello

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily
On Going Requirements

Area Affected:	Requirement:	Implemented (Y/N):	Notes:
Unpaved roads and disturbed areas in project and laydown area	Pre-water worksite before construction begins, and the project site shall be watered as frequently as necessary during construction. The watering frequency may be reduced in periods of precipitation	Y	In Compliance
Unpaved areas	No vehicle shall exceed 10 miles per hour	Y	In Compliance
Construction site entrance	Post visible speed limit signs - Identify location of signs in notes	Y	In Compliance
Construction Eq Vehicle tires	Inspected and washed as necessary to clean off dirt prior to leaving site	Y	In Compliance
Tire washing / cleaning station	Gravel ramps 20 ft in length - Identify location in notes	Y	In Compliance
Unpaved Exits	Gravel or treated to prevent track-out - Identify location in notes	Y	In Compliance
Construction entrance	Enter only through treated entrance roadways unless alternative route approved by CPM	Y	In Compliance
Construction areas adjacent to any paved roadways	Provided with sandbags or other measures in SWPPP to prevent runoff	Y	In Compliance
Paved Areas	Swept at least twice daily (or less during periods of precipitation during active days of construction)	Y	In Compliance
Public Roadway existing construction site	500 feet of public roadway swept visually clean at least twice daily (or less during periods of precipitation) during active construction days or when dirt is visible	Y	In Compliance
Storage areas inactive for more than 10 days	Covered or treated with dust suppressants, and vehicle access will be restricted.	Y	In Compliance
Bulk transport vehicles on public roadways	Cover or wet materials load with at least 2 feet of freeboard	Y	In Compliance
Construction Areas that may be disturbed	Install wind erosions control techniques (such as gravel, windbreaks, water, chemical dust suppressants, and/or vegetation) until soil is stabilized or permanently covered w/ vegetation.	Y	In Compliance
Disturbed areas	Re-Vegetated as soon as possible	Y	In Compliance
Encina Power Station property	Haul trucks used during construction limited to traveling on paved or graveled surfaces at all times	Y	In Compliance

1. The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes will not result upon restarting the activity that caused the shut-down. The owner/operator may appeal to the CPM any directive from the AQCMM or AQCMM Delegate to shut down all activity, provided that the shutdown shall go into effect within one hour of the original determination, unless overruled by the CPM before that time.

2. The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes that could impact visibility on I-5 will not occur upon restarting the activity that caused the shut-down.

Date: 11/2/18 | Jesse Batelen | Jesse Batelen
Rubel Martinez

Monitoring for Visible Dust Plumes with the potential to be transported off the project site:

Definition of Areas	Requirement	Specific Location / Area:
Identify Area	200 feet beyond the centerline of the construction of linear facilities	
Identify structures	within 100 feet upwind of any regularly occupied structures	
Identify distance / marker	50 feet upwind of I-5	

Reduce visible dust plumes to comply with CEC COC AQ-SC4 (with the exception of visible emissions within 50 feet upwind of the I-5 freeway)

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Within 15 minutes of making such a determination, require more intensive application of existing method - such as additional soil wetting	WATERED AS NEEDED FOR Dust Control	Started @ 5:00 AM	70° TNW Reg TRAFFIC
Step 2: If Step 1 fails to result in adequate mitigation within 30 minutes of the original determination, apply additional measures such as application of soil stabilizers, visqueen, or a geotech fabric.	N/A	N/A	N/A
Step 3: If Steps 1 and 2 fail to result in effective mitigation within 1 hour of the original determination, the AQCMM or AQCMM Delegate shall direct a temporary shutdown of the activity causing the emissions. [1]	N/A	N/A	N/A

Reduce visible dust plumes to comply with CEC COC AQ-SC4 within 50 feet upwind of the I-5 freeway

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Immediately cease the activities causing the visible dust plumes if any obscuration of visibility is occurring to drivers on I-5. Direct more intensive application of the existing mitigation methods immediately if the visible plumes are seen within 50 feet of I-5 but are not causing obscuration of visibility to drivers.	N/A	N/A	N/A
Step 2: Direct implementation of additional methods for dust suppression and monitor the start-up and/or continuation of the dust causing activities to ensure that the additional mitigation is effective.	N/A	N/A	N/A
Step 3: Direct a temporary shutdown of the activity causing the emissions if Step 2 specified above fails to result in effective mitigation. [2]	N/A	N/A	N/A

AQCMP or designee name: Rubel Martinez

AQCMP or designee signature: Terra Botelen

Date: 11/2/18

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily

On Going Diesel Requirements	Date:	Notes:
Complete inventory sheet	11/2/18	In Compliance
Confirm all equipment are ARB tagged on both sides and tags are visible.	11/2/18	In Compliance
Make sure CEC approval tag is located on all equipment used onsite	11/2/18	In Compliance
Documentation of engine tier is on file for any new equipment	11/2/18	In Compliance
Note tier 4 or document retrofit equipment on tier 3 engines, provide other document if not meet these requirements for all engines 50 hp or greater	11/2/18	In Compliance
Monthly include a list of the owner of that equipment and a letter from each owner indicating that equipment has been properly maintained	11/2/18	In Compliance
All diesel heavy construction equipment shall not idle for more than 5 minutes, to the extent practical. Vehicles that need to idle as part of their normal operation (such as concrete trucks) are exempted from this requirement	11/2/18	In Compliance
A list of all other actions taken to control diesel construction related emissions	11/2/18	In Compliance

AQCMP or designee name: Rubel Martinez
Date: 11/5/18
AQCMP or designee signature: Terri Bostelen

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily
On Going Requirements

Area Affected:	Requirement:	Implemented (Y/N):	Notes:
Unpaved roads and disturbed areas in project and laydown area	Pre-water worksite before construction begins, and the project site shall be watered as frequently as necessary during construction. The watering frequency may be reduced in periods of precipitation	Y	In Compliance
Unpaved areas	No vehicle shall exceed 10 miles per hour	Y	In Compliance
Construction site entrance	Post visible speed limit signs - identify location of signs in notes	Y	In Compliance
Construction Eq Vehicle tires	Inspected and washed as necessary to clean off dirt prior to leaving site	Y	In Compliance
Tire washing / cleaning station	Gravel ramps 20 ft in length - Identify location in notes	Y	In Compliance
Unpaved Exits	Gravel or treated to prevent track-out - identify location in notes	Y	In Compliance
Construction entrance	Enter only through treated entrance roadways unless alternative route approved by CPM	Y	In Compliance
Construction areas adjacent to any paved roadways	Provided with sandbags or other measures in SWPPP to prevent runoff	Y	In Compliance
Paved Areas	Swept at least twice daily (or less during periods of precipitation during active days of construction)	Y	In Compliance
Public Roadway existing construction site	500 feet of public roadway swept visually clean at least twice daily (or less during periods of precipitation) during active construction days or when dirt is visible	Y	In Compliance
Storage areas unactive for more than 10 days	Covered or treated with dust suppressants, and vehicle access will be restricted.	Y	In Compliance
Bulk transport vehicles on public roadways	Cover or wet materials load with at least 2 feet of freeboard	Y	In Compliance
Construction Areas that may be disturbed	Install wind erosions control techniques (such as gravel, windbreaks, water, chemical dust suppressants, and/or vegetation) until soil is stabilized or permanently covered w/ vegetation.	Y	In Compliance
Disturbed areas	Re-Vegetated as soon as possible	Y	In Compliance
Encina Power Station property	Haul trucks used during construction limited to traveling on paved or graveled surfaces at all times	Y	In Compliance

1. The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes will not result upon restarting the activity that caused the shut-down. The owner/operator may appeal to the CPM any directive from the AQCMM or AQCMM Delegate to shut down an activity, provided that the shutdown shall go into effect within one hour of the original determination, unless overruled by the CPM before that time.

2. The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes that could impact visibility on I-5 will not occur upon restarting the activity that caused the shut-down.

Date: 11/5/18 Terri Botelli — Terri Botelli (Rubel Martinez)

Monitoring for Visible Dust Plumes with the potential to be transported off the project site:

Definition of Areas	Requirement	Specific Location / Area:
Identify Area	200 feet beyond the centerline of the construction of linear facilities	
Identify structures	within 100 feet upwind of any regularly occupied structures	
Identify distance / marker	50 feet upwind of I-5	

Reduce visible dust plumes to comply with CEC COC AQ-SC4 (with the exception of visible emissions within 50 feet upwind of the I-5 freeway)

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Within 15 minutes of making such a determination, require more intensive application of existing method - such as additional soil wetting	WATERED FOR DUST CONTROL All During the Day AS NEEDED	Started @5:00 AM	66° 3 SW Road Constr.
Step 2: If Step 1 fails to result in adequate mitigation within 30 minutes of the original determination, apply additional measures such as application of soil stabilizers, visqueen, or a geotech fabric.	N/A	N/A	N/A
Step 3: If Steps 1 and 2 fail to result in effective mitigation within 1 hour of the original determination, the AQCMM or AQCMM Delegate shall direct a temporary shutdown of the activity causing the emissions. [1]	N/A	N/A	N/A

Reduce visible dust plumes to comply with CEC COC AQ-SC4 within 50 feet upwind of the I-5 freeway

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Immediately cease the activities causing the visible dust plumes if any obscuration of visibility is occurring to drivers on I-5. Direct more intensive application of the existing mitigation methods immediately if the visible plumes are seen within 50 feet of I-5 but are not causing obscuration of visibility to drivers.	N/A	N/A	N/A
Step 2: Direct implementation of additional methods for dust suppression and monitor the start-up and/or continuation of the dust causing activities to ensure that the additional mitigation is effective.	N/A	N/A	N/A
Step 3: Direct a temporary shutdown of the activity causing the emissions if Step 2 specified above fails to result in effective mitigation. [2]	N/A	N/A	N/A

AQCMP or designee name: Rubel Martinez

AQCMP or designee signature: Rubel Martinez

Date: 11/5/18

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily

On Going Diesel Requirements	Date:	Notes:
Complete inventory sheet	11/5/18	In Compliance
Confirm all equipment are ARB tagged on both sides and tags are visible.	11/5/18	In Compliance
Make sure CEC approval tag is located on all equipment used onsite	11/5/18	In Compliance
Documentation of engine tier is on file for any new equipment	11/5/18	In Compliance
Note tier 4 or document retrofit equipment on tier 3 engines, provide other document if not meet these requirements for all engines 50 hp or greater	11/5/18	In Compliance
Monthly include a list of the owner of that equipment and a letter from each owner indicating that equipment has been properly maintained	11/5/18	In Compliance
All diesel heavy construction equipment shall not idle for more than 5 minutes, to the extent practical. Vehicles that need to idle as part of their normal operation (such as concrete trucks) are exempted from this requirement	11/5/18	In Compliance
A list of all other actions taken to control diesel construction related emissions	11/5/18	In Compliance

AQCMP or designee name: Rubel Martinez
Date: 11/6/18
AQCMP or designee signature: Jerri Botelen

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily
On Going Requirements

Area Affected:	Requirement:	Implemented (Y/N):	Notes:
Unpaved roads and disturbed areas in project and laydown area	Pre-water worksite before construction begins, and the project site shall be watered as frequently as necessary during construction. The watering frequency may be reduced in periods of precipitation	Y	In Compliance
Unpaved areas	No vehicle shall exceed 10 miles per hour	Y	In Compliance
Construction site entrance	Post visible speed limit signs - Identify location of signs in notes	Y	In Compliance
Construction Eq Vehicle tires	Inspected and washed as necessary to clean off dirt prior to leaving site	Y	In Compliance
Tire washing / cleaning station	Gravel ramps 20 ft in length - Identify location in notes	Y	In Compliance
Unpaved Exits	Gravel or treated to prevent track-out - Identify location in notes	Y	In Compliance
Construction entrance	Enter only through treated entrance roadways unless alternative route approved by CPM	Y	In Compliance
Construction areas adjacent to any paved roadways	Provided with sandbags or other measures in SWPPP to prevent runoff	Y	In Compliance
Paved Areas	Swept at least twice daily (or less during periods of precipitation during active days of construction)	Y	In Compliance
Public Roadway existing construction site	500 feet of public roadway swept visually clean at least twice daily (or less during periods of precipitation) during active construction days or when dirt is visible	Y	In Compliance
Storage areas unactive for more than 10 days	Covered or treated with dust suppressants, and vehicle access will be restricted.	Y	In Compliance
Bulk transport vehicles on public roadways	Cover or wet materials load with at least 2 feet of freeboard	Y	In Compliance
Construction Areas that may be disturbed	Install wind erosions control techniques (such as gravel, windbreaks, water, chemical dust suppressants, and/or vegetation) until soil is stabilized or permanently covered w/ vegetation.	Y	In Compliance
Disturbed areas	Re-Vegetated as soon as possible	Y	In Compliance
Encina Power Station property	Haul trucks used during construction limited to traveling on paved or graveled surfaces at all times	Y	In Compliance

1 The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes will not result upon restarting the activity that caused the shut-down. The owner/operator may appeal to the CPM any directive from the AQCMM or AQCMM Delegate to shut down all activity, provided that the shutdown shall go into effect within one hour of the original determination, unless overruled by the CPM before that time.

2 The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes that could impact visibility on I-5 will not occur upon restarting the activity that caused the shut-down.

Date: 11/6/18 Jesse Botelho Jesse Botelho
Rubel Martinez

Monitoring for Visible Dust Plumes with the potential to be transported off the project site:

Definition of Areas	Requirement	Specific Location / Area:
Identify Area	200 feet beyond the centerline of the construction of linear facilities	
Identify structures	within 100 feet upwind of any regularly occupied structures	
Identify distance / marker	50 feet upwind of I-5	

Reduce visible dust plumes to comply with CEC COC AQ-SC4 (with the exception of visible emissions within 50 feet upwind of the I-5 freeway)

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Within 15 minutes of making such a determination, require more intensive application of existing method - such as additional soil wetting	WATERED AS NEEDED FOR Dust Control	STARTED @ 5:15 AM	66° S SW Asphalt crew
Step 2: If Step 1 fails to result in adequate mitigation within 30 minutes of the original determination, apply additional measures such as application of soil stabilizers, visqueen, or a geotech fabric.	N/A	N/A	N/A
Step 3: If Steps 1 and 2 fail to result in effective mitigation within 1 hour of the original determination, the AQCMM or AQCMM Delegate shall direct a temporary shutdown of the activity causing the emissions. [1]	N/A	N/A	N/A

Reduce visible dust plumes to comply with CEC COC AQ-SC4 within 50 feet upwind of the I-5 freeway

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Immediately cease the activities causing the visible dust plumes if any obscuration of visibility is occurring to drivers on I-5. Direct more intensive application of the existing mitigation methods immediately if the visible plumes are seen within 50 feet of I-5 but are not causing obscuration of visibility to drivers.	N/A	N/A	N/A
Step 2: Direct implementation of additional methods for dust suppression and monitor the start-up and/or continuation of the dust causing activities to ensure that the additional mitigation is effective.	N/A	N/A	N/A
Step 3: Direct a temporary shutdown of the activity causing the emissions if Step 2 specified above fails to result in effective mitigation. [2]	N/A	N/A	N/A

AQCMP or designee name:. Rubel Martinez

AQCMP or designee signature: Terri Botelen

Date: 11/6/18

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily

On Going Diesel Requirements	Date:	Notes:
Complete inventory sheet	11/6/18	In Compliance
Confirm all equipment are ARB tagged on both sides and tags are visible.	11/6/18	In Compliance
Make sure CEC approval tag is located on all equipment used onsite	11/6/18	In Compliance
Documentation of engine tier is on file for any new equipment	11/6/18	In Compliance
Note tier 4 or document retrofit equipment on tier 3 engines, provide other document if not meet these requirements for all engines 50 hp or greater	11/6/18	In Compliance
Monthly include a list of the owner of that equipment and a letter from each owner indicating that equipment has been properly maintained	11/6/18	In Compliance
All diesel heavy construction equipment shall not idle for more than 5 minutes, to the extent practical. Vehicles that need to idle as part of their normal operation (such as concrete trucks) are exempted from this requirement	11/6/18	In Compliance
A list of all other actions taken to control diesel construction related emissions	11/6/18	In Compliance

AQCMP or designee name: Rubel Martinez
AQCMP or designee signature: Jesse Butler
Date: 11/7/18

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily
On Going Requirements

Area Affected:	Requirement:	Implemented (Y/N):	Notes:
Unpaved roads and disturbed areas in project and laydown area	Pre-water worksite before construction begins, and the project site shall be watered as frequently as necessary during construction. The watering frequency may be reduced in periods of precipitation	Y	In Compliance
Unpaved areas	No vehicle shall exceed 10 miles per hour	Y	In Compliance
Construction site entrance	Post visible speed limit signs - identify location of signs in notes	Y	In Compliance
Construction Eq Vehicle tires	Inspected and washed as necessary to clean off dirt prior to leaving site	Y	In Compliance
Tire washing / cleaning station	Gravel ramps 20 ft in length - Identify location in notes	Y	In Compliance
Unpaved Exits	Gravel or treated to prevent track-out - identify location in notes	Y	In Compliance
Construction entrance	Enter only through treated entrance roadways unless alternative route approved by CPM	Y	In Compliance
Construction areas adjacent to any paved roadways	Provided with sandbags or other measures in SWPPP to prevent runoff	Y	In Compliance
Paved Areas	Swept at least twice daily (or less during periods of precipitation during active days of construction)	Y	In Compliance
Public Roadway existing construction site	500 feet of public roadway swept visually clean at least twice daily (or less during periods of precipitation) during active construction days or when dirt is visible	Y	In Compliance
Storage areas unactive for more than 10 days	Covered or treated with dust suppressants, and vehicle access will be restricted.	Y	In Compliance
Bulk transport vehicles on public roadways	Cover or wet materials load with at least 2 feet of freeboard	Y	In Compliance
Construction Areas that may be disturbed	Install wind erosions control techniques (such as gravel, windbreaks, water, chemical dust suppressants, and/or vegetation) until soil is stabilized or permanently covered w/ vegetation.	Y	In Compliance
Disturbed areas	Re-Vegetated as soon as possible	Y	In Compliance
Encina Power Station property	Haul trucks used during construction limited to travelling on paved or graveled surfaces at all times	Y	In Compliance

1. The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes will not result upon restarting the activity that caused the shut-down. The owner/operator may appeal to the CPM any directive from the AQCMM or AQCMM Delegate to shut down an activity, provided that the shutdown shall go into effect within one hour of the original determination, unless overruled by the CPM before that time.

2. The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes that could impact visibility on I-5 will not occur upon restarting the activity that caused the shut-down.

Date: 11/7/18 Rubel Martinez Terra Botcher

Monitoring for Visible Dust Plumes with the potential to be transported off the project site:

Definition of Areas	Requirement	Specific Location / Area:
Identify Area	200 feet beyond the centerline of the construction of linear facilities	
Identify structures	within 100 feet upwind of any regularly occupied structures	
Identify distance / marker	50 feet upwind of I-5	

Reduce visible dust plumes to comply with CEC COC AQ-SC4 (with the exception of visible emissions within 50 feet upwind of the I-5 freeway)

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Within 15 minutes of making such a determination, require more intensive application of existing method - such as additional soil wetting	WATER for Dust Control Off + on all Day as needed	Started @ 5:00AM	Reg. Traffic 66. 7 W
Step 2: If Step 1 fails to result in adequate mitigation within 30 minutes of the original determination, apply additional measures such as application of soil stabilizers, visqueen, or a geotech fabric.	N/A	N/A	N/A
Step 3: If Steps 1 and 2 fail to result in effective mitigation within 1 hour of the original determination, the AQCMM or AQCMM Delegate shall direct a temporary shutdown of the activity causing the emissions. [1]	N/A	N/A	N/A

Reduce visible dust plumes to comply with CEC COC AQ-SC4 within 50 feet upwind of the I-5 freeway

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Immediately cease the activities causing the visible dust plumes if any obscuration of visibility is occurring to drivers on I-5. Direct more intensive application of the existing mitigation methods immediately if the visible plumes are seen within 50 feet of I-5 but are not causing obscuration of visibility to drivers.	N/A	N/A	N/A
Step 2: Direct implementation of additional methods for dust suppression and monitor the start-up and/or continuation of the dust causing activities to ensure that the additional mitigation is effective.	N/A	N/A	N/A
Step 3: Direct a temporary shutdown of the activity causing the emissions if Step 2 specified above fails to result in effective mitigation. [1]	N/A	N/A	N/A

AQCMP or designee name: Rubel Martinez

AQCMP or designee signature: Jesse Botelho

Date: 11/7/18

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily

On Going Diesel Requirements	Date:	Notes:
Complete inventory sheet	11/7/18	In Compliance
Confirm all equipment are ARB tagged on both sides and tags are visible.	11/7/18	In Compliance
Make sure CEC approval tag is located on all equipment used onsite	11/7/18	In Compliance
Documentation of engine tier is on file for any new equipment	11/7/18	In Compliance
Note tier 4 or document retrofit equipment on tier 3 engines, provide other document if not meet these requirements for all engines 50 hp or greater	11/7/18	In Compliance
Monthly include a list of the owner of that equipment and a letter from each owner indicating that equipment has been properly maintained	11/7/18	In Compliance
All diesel heavy construction equipment shall not idle for more than 5 minutes, to the extent practical. Vehicles that need to idle as part of their normal operation (such as concrete trucks) are exempted from this requirement	11/7/18	In Compliance
A list of all other actions taken to control diesel construction related emissions	11/7/18	In Compliance

AQCMP or designee name: Rubel Martinez
Date: 11/8/18
AQCMP or designee signature: Jerri Botelen

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily
On Going Requirements

Area Affected:	Requirement:	Implemented (Y/N):	Notes:
Unpaved roads and disturbed areas in project and laydown area	Pre-water worksite before construction begins, and the project site shall be watered as frequently as necessary during construction. The watering frequency may be reduced in periods of precipitation	Y	In Compliance
Unpaved areas	No vehicle shall exceed 10 miles per hour	Y	In Compliance
Construction site entrance	Post visible speed limit signs - Identify location of signs in notes	Y	In Compliance
Construction Eq Vehicle tires	Inspected and washed as necessary to clean off dirt prior to leaving site	Y	In Compliance
Tire washing / cleaning station	Gravel ramps 20 ft in length - Identify location in notes	Y	In Compliance
Unpaved Exits	Gravel or treated to prevent track-out - Identify location in notes	Y	In Compliance
Construction entrance	Enter only through treated entrance roadways unless alternative route approved by CPM	Y	In Compliance
Construction areas adjacent to any paved roadways	Provided with sandbags or other measures in SWPPP to prevent runoff	Y	In Compliance
Paved Areas	Swept at least twice daily (or less during periods of precipitation during active days of construction)	Y	In Compliance
Public Roadway existing construction site	500 feet of public roadway swept visually clean at least twice daily (or less during periods of precipitation) during active construction days or when dirt is visible	Y	In Compliance
Storage areas unactive for more than 10 days	Covered or treated with dust suppressants, and vehicle access will be restricted.	Y	In Compliance
Bulk transport vehicles on public roadways	Cover or wet materials load with at least 2 feet of freeboard	Y	In Compliance
Construction Areas that may be disturbed	Install wind erosions control techniques (such as gravel, windbreaks, water, chemical dust suppressants, and/or vegetation) until soil is stabilized or permanently covered w/ vegetation.	Y	In Compliance
Disturbed areas	Re-Vegetated as soon as possible	Y	In Compliance
Encina Power Station property	Haul trucks used during construction limited to traveling on paved or graveled surfaces at all times	Y	In Compliance

1 The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes will not result upon restarting the activity that caused the shut-down. The owner/operator may appeal to the CPM any directive from the AQCMM or AQCMM Delegate to shut down an activity, provided that the shutdown shall go into effect within one hour of the original determination, unless overruled by the CPM before that time.

2 The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes that could impact visibility on it will not occur upon restarting the activity that caused the shut-down.

Date: 11/8/18 Jesse Botelez Jesse Botelez.
Rubel Martinez

Monitoring for Visible Dust Plumes with the potential to be transported off the project site:

Definition of Areas	Requirement	Specific Location / Area:
Identify Area	200 feet beyond the centerline of the construction of linear facilities	
Identify structures	within 100 feet upwind of any regularly occupied structures	
Identify distance / marker	50 feet upwind of I-5	

Reduce visible dust plumes to comply with CEC COC AQ-SC4 (with the exception of visible emissions within 50 feet upwind of the I-5 freeway)

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Within 15 minutes of making such a determination, require more intensive application of existing method - such as additional soil wetting	WATERED OFF AND ON DURING THE DAY AS NEEDED FOR DUST CONTROL	START 6:00 @ 5:00AM	69° 5 W Regular Traffic
Step 2: If Step 1 fails to result in adequate mitigation within 30 minutes of the original determination, apply additional measures such as application of soil stabilizers, visqueen, or a geotech fabric.	N/A	N/A	N/A
Step 3: If Steps 1 and 2 fail to result in effective mitigation within 1 hour of the original determination, the AQCMM or AQCMM Delegate shall direct a temporary shutdown of the activity causing the emissions. [1]	N/A	N/A	N/A

Reduce visible dust plumes to comply with CEC COC AQ-SC4 within 50 feet upwind of the I-5 freeway

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Immediately cease the activities causing the visible dust plumes if any obscuration of visibility is occurring to drivers on I-5. Direct more intensive application of the existing mitigation methods immediately if the visible plumes are seen within 50 feet of I-5 but are not causing obscuration of visibility to drivers.	N/A	N/A	N/A
Step 2: Direct implementation of additional methods for dust suppression and monitor the start-up and/or continuation of the dust causing activities to ensure that the additional mitigation is effective.	N/A	N/A	N/A
Step 3: Direct a temporary shutdown of the activity causing the emissions if Step 2 specified above fails to result in effective mitigation. [2]	N/A	N/A	N/A

AQCMP or designee name: Rubel Martinez

AQCMP or designee signature: Jerm Botelen

Date: 11/8/18

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily

On Going Diesel Requirements	Date:	Notes:
Complete inventory sheet	11/8/18	In Compliance
Confirm all equipment are ARB tagged on both sides and tags are visible.	11/8/18	In Compliance
Make sure CEC approval tag is located on all equipment used onsite	11/8/18	In Compliance
Documentation of engine tier is on file for any new equipment	11/8/18	In Compliance
Note tier 4 or document retrofit equipment on tier 3 engines, provide other document if not meet these requirements for all engines 50 hp or greater	11/8/18	In Compliance
Monthly include a list of the owner of that equipment and a letter from each owner indicating that equipment has been properly maintained	11/8/18	In Compliance
All diesel heavy construction equipment shall not idle for more than 5 minutes, to the extent practical. Vehicles that need to idle as part of their normal operation (such as concrete trucks) are exempted from this requirement	11/8/18	In Compliance
A list of all other actions taken to control diesel construction related emissions	11/8/18	In Compliance

AQCMP or designee name: Rubel Martinez
Date: 11/9/18
AQCMP or designee signature: Terri Botelen

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily
On Going Requirements

Area Affected:	Requirement:	Implemented (Y/N):	Notes:
Unpaved roads and disturbed areas in project and laydown area	Pre-water worksite before construction begins, and the project site shall be watered as frequently as necessary during construction. The watering frequency may be reduced in periods of precipitation	Y	In Compliance
Unpaved areas	No vehicle shall exceed 10 miles per hour	Y	In Compliance
Construction site entrance	Post visible speed limit signs - Identify location of signs in notes	Y	In Compliance
Construction Eq Vehicle tires	Inspected and washed as necessary to clean off dirt prior to leaving site	Y	In Compliance
Tire washing / cleaning station	Gravel ramps 20 ft in length - Identify location in notes	Y	In Compliance
Unpaved Exits	Gravel or treated to prevent track-out - Identify location in notes	Y	In Compliance
Construction entrance	Enter only through treated entrance roadways unless alternative route approved by CPM	Y	In Compliance
Construction areas adjacent to any paved roadways	Provided with sandbags or other measures in SWPPP to prevent runoff	Y	In Compliance
Paved Areas	Swept at least twice daily (or less during periods of precipitation during active days of construction)	Y	In Compliance
Public Roadway existing construction site	500 feet of public roadway swept visually clean at least twice daily (or less during periods of precipitation) during active construction days or when dirt is visible	Y	In Compliance
Storage areas unactive for more than 10 days	Covered or treated with dust suppressants, and vehicle access will be restricted.	Y	In Compliance
Bulk transport vehicles on public roadways	Cover or wet materials load with at least 2 feet of freeboard	Y	In Compliance
Construction Areas that may be disturbed	Install wind erosions control techniques (such as gravel, windbreaks, water, chemical dust suppressants, and/or vegetation) until soil is stabilized or permanently covered w/ vegetation.	Y	In Compliance
Disturbed areas	Re-Vegetated as soon as possible	Y	In Compliance
Encina Power Station property	Haul trucks used during construction limited to traveling on paved or graveled surfaces at all times	Y	In Compliance

1. The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes will not result upon restarting the activity that caused the shut-down. The owner/operator may appeal to the CPM any directive from the AQCMM or AQCMM Delegate to shut down all activity, provided that the shutdown shall go into effect within one hour of the original determination, unless overruled by the CPM before that time.

2. The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes that could impact visibility on I5 will not occur upon restarting the activity that caused the shut-down.

Date: 11/9/18 | Rubel Martinez

Monitoring for Visible Dust Plumes with the potential to be transported off the project site:

Definition of Areas	Requirement	Specific Location / Area:
Identify Area	200 feet beyond the centerline of the construction of linear facilities	
Identify structures	within 100 feet upwind of any regularly occupied structures	
Identify distance / marker	50 feet upwind of I-5	

Reduce visible dust plumes to comply with CEC COC AQ-SC4 (with the exception of visible emissions within 50 feet upwind of the I-5 freeway)

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Within 15 minutes of making such a determination, require more intensive application of existing method – such as additional soil wetting	WATERED AS NEEDED FOR Dust Control	STARTED @5:00 AM	750 9 NG Reg TRAFFIC
Step 2: If Step 1 fails to result in adequate mitigation within 30 minutes of the original determination, apply additional measures such as application of soil stabilizers, visqueen, or a geotech fabric.	N/A	N/A	N/A
Step 3: If Steps 1 and 2 fail to result in effective mitigation within 1 hour of the original determination, the AQCMM or AQCMM Delegate shall direct a temporary shutdown of the activity causing the emissions. [1]	N/A	N/A	N/A

Reduce visible dust plumes to comply with CEC COC AQ-SC4 within 50 feet upwind of the I-5 freeway

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Immediately cease the activities causing the visible dust plumes if any obscuration of visibility is occurring to drivers on I-5. Direct more intensive application of the existing mitigation methods immediately if the visible plumes are seen within 50 feet of I-5 but are not causing obscuration of visibility to drivers.	N/A	N/A	N/A
Step 2: Direct implementation of additional methods for dust suppression and monitor the start-up and/or continuation of the dust causing activities to ensure that the additional mitigation is effective.	N/A	N/A	N/A
Step 3: Direct a temporary shutdown of the activity causing the emissions if Step 2 specified above fails to result in effective mitigation. [2]	N/A	N/A	N/A

AQCMP or designee name: Rubel Martinez

AQCMP or designee signature: Ferrer Botelero

Date: 11/9/18

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily

On Going Diesel Requirements	Date:	Notes:
Complete inventory sheet	11/9/18	In Compliance
Confirm all equipment are ARB tagged on both sides and tags are visible.	11/9/18	In Compliance
Make sure CEC approval tag is located on all equipment used onsite	11/9/18	In Compliance
Documentation of engine tier is on file for any new equipment	11/9/18	In Compliance
Note tier 4 or document retrofit equipment on tier 3 engines, provide other document if not meet these requirements for all engines 50 hp or greater	11/9/18	In Compliance
Monthly include a list of the owner of that equipment and a letter from each owner indicating that equipment has been properly maintained	11/9/18	In Compliance
All diesel heavy construction equipment shall not idle for more than 5 minutes, to the extent practical. Vehicles that need to idle as part of their normal operation (such as concrete trucks) are exempted from this requirement	11/9/18	In Compliance
A list of all other actions taken to control diesel construction related emissions	11/9/18	In Compliance

AQCMP or designee name: Ruben Martinez
Date: 11/13/18
AQCMP or designee signature: Jesse Botelen

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily
On Going Requirements

Area Affected:	Requirement:	Implemented (Y/N):	Notes:
Unpaved roads and disturbed areas in project and laydown area	Pre-water worksite before construction begins, and the project site shall be watered as frequently as necessary during construction. The watering frequency may be reduced in periods of precipitation	Y	In Compliance
Unpaved areas	No vehicle shall exceed 10 miles per hour	Y	In Compliance
Construction site entrance	Post visible speed limit signs - identify location of signs in notes	Y	In Compliance
Construction Eq Vehicle tires	Inspected and washed as necessary to clean off dirt prior to leaving site	Y	In Compliance
Tire washing / cleaning station	Gravel ramps 20 ft in length - identify location in notes	Y	In Compliance
Unpaved Exits	Gravel or treated to prevent track-out - identify location in notes	Y	In Compliance
Construction entrance	Enter only through treated entrance roadways unless alternative route approved by CPM	Y	In Compliance
Construction areas adjacent to any paved roadways	Provided with sandbags or other measures in SWPPP to prevent runoff	Y	In Compliance
Paved Areas	Swept at least twice daily (or less during periods of precipitation during active days of construction)	Y	In Compliance
Public Roadway existing construction site	500 feet of public roadway swept visually clean at least twice daily (or less during periods of precipitation) during active construction days or when dirt is visible	Y	In Compliance
Storage areas unactive for more than 10 days	Covered or treated with dust suppressants, and vehicle access will be restricted.	Y	In Compliance
Bulk transport vehicles on public roadways	Cover or wet materials load with at least 2 feet of freeboard	Y	In Compliance
Construction Areas that may be disturbed	Install wind erosions control techniques (such as gravel, windbreaks, water, chemical dust suppressants, and/or vegetation) until soil is stabilized or permanently covered w/ vegetation.	Y	In Compliance
Disturbed areas	Re-Vegetated as soon as possible	Y	In Compliance
Encina Power Station property	Haul trucks used during construction limited to traveling on paved or graveled surfaces at all times	Y	In Compliance

1 The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes will not result upon restarting the activity that caused the shut-down. The owner/operator may appeal to the CPM any directive from the AQCMM or AQCMM Delegate to shut down an activity, provided that the shutdown shall go into effect within one hour of the original determination, unless overruled by the CPM before that time.

2 The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes that could impact visibility on I-5 will not occur upon restarting the activity that caused the shut-down.

Date: 11/13/18 Jesse Botelez Jesse Botelez Rubel Martinez

Monitoring for Visible Dust Plumes with the potential to be transported off the project site:

Definition of Areas	Requirement	Specific Location / Area:
Identify Area	200 feet beyond the centerline of the construction of linear facilities	
Identify structures	within 100 feet upwind of any regularly occupied structures	
Identify distance / marker	50 feet upwind of I-5	

Reduce visible dust plumes to comply with CEC COC AQ-SC4 (with the exception of visible emissions within 50 feet upwind of the I-5 freeway)

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Within 15 minutes of making such a determination, require more intensive application of existing method - such as additional soil wetting	WATERED FOR Dust Control AS NEEDED	STARTED @ 5:00 AM	71° 21E Asphalt Crew Back-fill
Step 2: If Step 1 fails to result in adequate mitigation within 30 minutes of the original determination, apply additional measures such as application of soil stabilizers, visqueen, or a geotech fabric.	N/A	N/A	N/A
Step 3: If Steps 1 and 2 fail to result in effective mitigation within 1 hour of the original determination, the AQCMM or AQCMM Delegate shall direct a temporary shutdown of the activity causing the emissions. [1]	N/A	N/A	N/A

Reduce visible dust plumes to comply with CEC COC AQ-SC4 within 50 feet upwind of the I-5 freeway

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Immediately cease the activities causing the visible dust plumes if any obscuration of visibility is occurring to drivers on I-5. Direct more intensive application of the existing mitigation methods immediately if the visible plumes are seen within 50 feet of I-5 but are not causing obscuration of visibility to drivers.	N/A	N/A	N/A
Step 2: Direct implementation of additional methods for dust suppression and monitor the start-up and/or continuation of the dust causing activities to ensure that the additional mitigation is effective.	N/A	N/A	N/A
Step 3: Direct a temporary shutdown of the activity causing the emissions if Step 2 specified above fails to result in effective mitigation. [2]	N/A	N/A	N/A

AQCMP or designee name: Rubel Martinez Terri Boteler

AQCMP or designee signature: Terri Boteler

Date: 11/13/18

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily

On Going Diesel Requirements	Date:	Notes:
Complete Inventory sheet	11/13/18	In Compliance
Confirm all equipment are ARB tagged on both sides and tags are visible.	11/13/18	In Compliance
Make sure CEC approval tag is located on all equipment used onsite	11/13/18	In Compliance
Documentation of engine tier is on file for any new equipment	11/13/18	In Compliance
Note tier 4 or document retrofit equipment on tier 3 engines, provide other document if not meet these requirements for all engines 50 hp or greater	11/13/18	In Compliance
Monthly Include a list of the owner of that equipment and a letter from each owner indicating that equipment has been properly maintained	11/13/18	In Compliance
All diesel heavy construction equipment shall not idle for more than 5 minutes, to the extent practical. Vehicles that need to idle as part of their normal operation (such as concrete trucks) are exempted from this requirement	11/13/18	In Compliance
A list of all other actions taken to control diesel construction related emissions	11/13/18	In Compliance

AQCMP or designee name: Rubal Martinez
Date: 11/14/18
AQCMP or designee signature: Jerri Botelen

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily
On Going Requirements

Area Affected:	Requirement:	Implemented (Y/N):	Notes:
Unpaved roads and disturbed areas in project and laydown area	Pre-water worksite before construction begins, and the project site shall be watered as frequently as necessary during construction. The watering frequency may be reduced in periods of precipitation	Y	In Compliance
Unpaved areas	No vehicle shall exceed 10 miles per hour	Y	In Compliance
Construction site entrance	Post visible speed limit signs - identify location of signs in notes	Y	In Compliance
Construction Eq Vehicle tires	Inspected and washed as necessary to clean off dirt prior to leaving site	Y	In Compliance
Tire washing / cleaning station	Gravel ramps 20 ft in length - identify location in notes	Y	In Compliance
Unpaved Exits	Gravel or treated to prevent track-out - identify location in notes	Y	In Compliance
Construction entrance	Enter only through treated entrance roadways unless alternative route approved by CPM	Y	In Compliance
Construction areas adjacent to any paved roadways	Provided with sandbags or other measures in SWPPP to prevent runoff	Y	In Compliance
Paved Areas	Swept at least twice daily (or less during periods of precipitation during active days of construction)	Y	In Compliance
Public Roadway existing construction site	500 feet of public roadway swept visually clean at least twice daily (or less during periods of precipitation) during active construction days or when dirt is visible	Y	In Compliance
Storage areas unactive for more than 10 days	Covered or treated with dust suppressants, and vehicle access will be restricted.	Y	In Compliance
Bulk transport vehicles on public roadways	Cover or wet materials load with at least 2 feet of freeboard	Y	In Compliance
Construction Areas that may be disturbed	Install wind erosions control techniques (such as gravel, windbreaks, water, chemical dust suppressants, and/or vegetation) until soil is stabilized or permanently covered w/ vegetation.	Y	In Compliance
Disturbed areas	Re-Vegetated as soon as possible	Y	In Compliance
Encina Power Station property	Haul trucks used during construction limited to traveling on paved or graveled surfaces at all times	Y	In Compliance

1. The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes will not result upon restarting the activity that caused the shut-down. The owner/operator may appeal to the CPM any directive from the AQCMM or AQCMM Delegate to shut down an activity, provided that the shutdown shall go into effect within one hour of the original determination, unless overruled by the CPM before that time.

2 The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes that could impact visibility on I-5 will not occur upon restarting the activity that caused the shut-down.

Date: 11/14/18 | Terra Botelen | Rubel Martinez

Monitoring for Visible Dust Plumes with the potential to be transported off the project site:

Definition of Areas	Requirement	Specific Location / Area:
Identify Area	200 feet beyond the centerline of the construction of linear facilities	
Identify structures	within 100 feet upwind of any regularly occupied structures	
Identify distance / marker	50 feet upwind of I-5	

Reduce visible dust plumes to comply with CEC COC AQ-SC4 (with the exception of visible emissions within 50 feet upwind of the I-5 freeway)

Area Affected / Source:	Mitigation Measure Implemented:	Date / Time Identified: Time Implemented	Notes
Step 1: Within 15 minutes of making such a determination, require more intensive application of existing method - such as additional soil wetting	WATERED DRY AND ON ALL DAY AS NEEDED	STARTED @5:00 AM	730 @ 14 E Asphault Crew Back Fill
Step 2: If Step 1 fails to result in adequate mitigation within 30 minutes of the original determination, apply additional measures such as application of soil stabilizers, visqueen, or a geotech fabric.	N/A	N/A	N/A
Step 3: If Steps 1 and 2 fail to result in effective mitigation within 1 hour of the original determination, the AQCMM or AQCMM Delegate shall direct a temporary shutdown of the activity causing the emissions. [1]	N/A	N/A	N/A

Reduce visible dust plumes to comply with CEC COC AQ-SC4 within 50 feet upwind of the I-5 freeway

Area Affected / Source:	Mitigation Measure Implemented:	Date / Time Identified: Time Implemented	Notes
Step 1: Immediately cease the activities causing the visible dust plumes if any obscuration of visibility is occurring to drivers on I-5. Direct more intensive application of the existing mitigation methods immediately if the visible plumes are seen within 50 feet of I-5 but are not causing obscuration of visibility to drivers.	N/A	N/A	N/A
Step 2: Direct implementation of additional methods for dust suppression and monitor the start-up and/or continuation of the dust causing activities to ensure that the additional mitigation is effective.	N/A	N/A	N/A
Step 3: Direct a temporary shutdown of the activity causing the emissions if Step 2 specified above fails to result in effective mitigation. [2]	N/A	N/A	N/A

AQCMP or designee name: Rubel Martinez

AQCMP or designee signature: Jesse Bostelen

Date: 11/14/18

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily

On Going Diesel Requirements	Date:	Notes:
Complete inventory sheet	11/14/18	In Compliance
Confirm all equipment are ARB tagged on both sides and tags are visible.	11/14/18	In Compliance
Make sure CEC approval tag is located on all equipment used onsite	11/14/18	In Compliance
Documentation of engine tier is on file for any new equipment	11/14/18	In Compliance
Note tier 4 or document retrofit equipment on tier 3 engines, provide other document if not meet these requirements for all engines 50 hp or greater	11/14/18	In Compliance
Monthly include a list of the owner of that equipment and a letter from each owner indicating that equipment has been properly maintained	11/14/18	In Compliance
All diesel heavy construction equipment shall not idle for more than 5 minutes, to the extent practical. Vehicles that need to idle as part of their normal operation (such as concrete trucks) are exempted from this requirement	11/14/18	In Compliance
A list of all other actions taken to control diesel construction related emissions	11/14/18	In Compliance

AQCMP or designee name: Rubel Martinez
Date: 11/15/18
AQCMP or designee signature: Jesse Botello

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily
On Going Requirements

Area Affected:	Requirement:	Implemented (Y/N):	Notes:
Unpaved roads and disturbed areas in project and laydown area	Pre-water worksite before construction begins, and the project site shall be watered as frequently as necessary during construction. The watering frequency may be reduced in periods of precipitation	Y	In Compliance
Unpaved areas	No vehicle shall exceed 10 miles per hour	Y	In Compliance
Construction site entrance	Post visible speed limit signs - Identify location of signs in notes	Y	In Compliance
Construction Eq Vehicle tires	Inspected and washed as necessary to clean off dirt prior to leaving site	Y	In Compliance
Tire washing / cleaning station	Gravel ramps 20 ft in length - Identify location in notes	Y	In Compliance
Unpaved Exits	Gravel or treated to prevent track-out - Identify location in notes	Y	In Compliance
Construction entrance	Enter only through treated entrance roadways unless alternative route approved by CPM	Y	In Compliance
Construction areas adjacent to any paved roadways	Provided with sandbags or other measures in SWPPP to prevent runoff	Y	In Compliance
Paved Areas	Swept at least twice daily (or less during periods of precipitation during active days of construction)	Y	In Compliance
Public Roadway existing construction site	500 feet of public roadway swept visually clean at least twice daily (or less during periods of precipitation) during active construction days or when dirt is visible	Y	In Compliance
Storage areas unactive for more than 10 days	Covered or treated with dust suppressants, and vehicle access will be restricted.	Y	In Compliance
Bulk transport vehicles on public roadways	Cover or wet materials load with at least 2 feet of freeboard	Y	In Compliance
Construction Areas that may be disturbed	Install wind erosions control techniques (such as gravel, windbreaks, water, chemical dust suppressants, and/or vegetation) until soil is stabilized or permanently covered w/ vegetation.	Y	In Compliance
Disturbed areas	Re-Vegetated as soon as possible	Y	In Compliance
Encina Power Station property	Haul trucks used during construction limited to traveling on paved or graveled surfaces at all times	Y	In Compliance

1. The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes will not result upon restarting the activity that caused the shut-down. The owner/operator may appeal to the CPM any directive from the AQCMM or AQCMM Delegate to shut down an activity, provided that the shutdown shall go into effect within one hour of the original determination, unless overruled by the CPM before that time.

2. The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes that could impact visibility on I-5 will not occur upon restarting the activity that caused the shut-down.

Date: 11/15/18 Terra Botelen

Rubel Martinez

Monitoring for Visible Dust Plumes with the potential to be transported off the project site:

Definition of Areas	Requirement	Specific Location / Area:
Identify Area	200 feet beyond the centerline of the construction of linear facilities	
Identify structures	within 100 feet upwind of any regularly occupied structures	
Identify distance / marker	50 feet upwind of I-5	

Reduce visible dust plumes to comply with CEC COC AQ-SC4 (with the exception of visible emissions within 50 feet upwind of the I-5 freeway)

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Within 15 minutes of making such a determination, require more intensive application of existing method – such as additional soil wetting	WATERED For Dust Control AS needed	Started @5:00 AM	70° TW Reg TRAFFIC
Step 2: If Step 1 fails to result in adequate mitigation within 30 minutes of the original determination, apply additional measures such as application of soil stabilizers, visqueen, or a geotech fabric.	N/A	N/A	N/A
Step 3: If Steps 1 and 2 fail to result in effective mitigation within 1 hour of the original determination, the AQCMM or AQCMM Delegate shall direct a temporary shutdown of the activity causing the emissions. [1]	N/A	N/A	N/A

Reduce visible dust plumes to comply with CEC COC AQ-SC4 within 50 feet upwind of the I-5 freeway

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Immediately cease the activities causing the visible dust plumes if any obscuration of visibility is occurring to drivers on I-5. Direct more intensive application of the existing mitigation methods immediately if the visible plumes are seen within 50 feet of I-5 but are not causing obscuration of visibility to drivers.	N/A	N/A	N/A
Step 2: Direct implementation of additional methods for dust suppression and monitor the start-up and/or continuation of the dust causing activities to ensure that the additional mitigation is effective.	N/A	N/A	N/A
Step 3: Direct a temporary shutdown of the activity causing the emissions if Step 2 specified above fails to result in effective mitigation. [2]	N/A	N/A	N/A

AQCMP or designee name: Rubel Martinez

AQCMP or designee signature: Jesse Bolden

Date: 11/15/18

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily

On Going Diesel Requirements	Date:	Notes:
Complete inventory sheet	11/15/18	In Compliance
Confirm all equipment are ARB tagged on both sides and tags are visible.	11/15/18	In Compliance
Make sure CEC approval tag is located on all equipment used onsite	11/15/18	In Compliance
Documentation of engine tier is on file for any new equipment	11/15/18	In Compliance
Note tier 4 or document retrofit equipment on tier 3 engines, provide other document if not meet these requirements for all engines 50 hp or greater	11/15/18	In Compliance
Monthly include a list of the owner of that equipment and a letter from each owner indicating that equipment has been properly maintained	11/15/18	In Compliance
All diesel heavy construction equipment shall not idle for more than 5 minutes, to the extent practical. Vehicles that need to idle as part of their normal operation (such as concrete trucks) are exempted from this requirement	11/15/18	In Compliance
A list of all other actions taken to control diesel construction related emissions	11/15/18	In Compliance

AQCMP or designee name: Rubel Martinez

AQCMP or designee signature: Irene Botelen

Date: 11/16/18

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily

On Going Requirements

Area Affected:	Requirement:	Implemented (Y/N):	Notes:
Unpaved roads and disturbed areas in project and laydown area	Pre-water worksite before construction begins, and the project site shall be watered as frequently as necessary during construction. The watering frequency may be reduced in periods of precipitation	Y	In Compliance
Unpaved areas	No vehicle shall exceed 10 miles per hour	Y	In Compliance
Construction site entrance	Post visible speed limit signs - identify location of signs in notes	Y	In Compliance
Construction Eq Vehicle tires	Inspected and washed as necessary to clean off dirt prior to leaving site	Y	In Compliance
Tire washing / cleaning station	Gravel ramps 20 ft in length - identify location in notes	Y	In Compliance
Unpaved Exits	Gravel or treated to prevent track-out - identify location in notes	Y	In Compliance
Construction entrance	Enter only through treated entrance roadways unless alternative route approved by CPM	Y	In Compliance
Construction areas adjacent to any paved roadways	Provided with sandbags or other measures in SWPPP to prevent runoff	Y	In Compliance
Paved Areas	Swept at least twice daily (or less during periods of precipitation during active days of construction)	Y	In Compliance
Public Roadway existing construction site	500 feet of public roadway swept visually clean at least twice daily (or less during periods of precipitation) during active construction days or when dirt is visible	Y	In Compliance
Storage areas unactive for more than 10 days	Covered or treated with dust suppressants, and vehicle access will be restricted.	Y	In Compliance
Bulk transport vehicles on public roadways	Cover or wet materials load with at least 2 feet of freeboard	Y	In Compliance
Construction Areas that may be disturbed	Install wind erosions control techniques (such as gravel, windbreaks, water, chemical dust suppressants, and/or vegetation) until soil is stabilized or permanently covered w/ vegetation.	Y	In Compliance
Disturbed areas	Re-Vegetated as soon as possible	Y	In Compliance
Encina Power Station property	Haul trucks used during construction limited to traveling on paved or graveled surfaces at all times	Y	In Compliance

1. The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes will not result upon restarting the activity that caused the shut-down. The owner/operator may appeal to the CPM any directive from the AQCMM or AQCMM Delegate to shut down an activity, provided that the shutdown shall go into effect within one hour of the original determination, unless overruled by the CPM before that time.

2. The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes that could impact visibility on I-5 will not occur upon restarting the activity that caused the shut-down.

Date: 11/16/18 | Jesse Botelho | Terri Botelho | Rubel Martinez

Monitoring for Visible Dust Plumes with the potential to be transported off the project site:

Definition of Areas	Requirement	Specific Location / Area:
Identify Area	200 feet beyond the centerline of the construction of linear facilities	
Identify structures	within 100 feet upwind of any regularly occupied structures	
Identify distance / marker	50 feet upwind of I-5	

Reduce visible dust plumes to comply with CEC COC AQ-SC4 (with the exception of visible emissions within 50 feet upwind of the I-5 freeway)

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Within 15 minutes of making such a determination, require more intensive application of existing method - such as additional soil wetting	WATERED ALL DURING THE DAY	Started @5:00 AM	67° 5 SW Reg Traffic
Step 2: If Step 1 fails to result in adequate mitigation within 30 minutes of the original determination, apply additional measures such as application of soil stabilizers, visqueen, or a geotech fabric.	N/A	N/A	N/A
Step 3: If Steps 1 and 2 fail to result in effective mitigation within 1 hour of the original determination, the AQCMM or AQCMM Delegate shall direct a temporary shutdown of the activity causing the emissions. [1]	N/A	N/A	N/A

Reduce visible dust plumes to comply with CEC COC AQ-SC4 within 50 feet upwind of the I-5 freeway

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Immediately cease the activities causing the visible dust plumes if any obscuration of visibility is occurring to drivers on I-5. Direct more intensive application of the existing mitigation methods immediately if the visible plumes are seen within 50 feet of I-5 but are not causing obscuration of visibility to drivers.	N/A	N/A	N/A
Step 2: Direct implementation of additional methods for dust suppression and monitor the start-up and/or continuation of the dust causing activities to ensure that the additional mitigation is effective.	N/A	N/A	N/A
Step 3: Direct a temporary shutdown of the activity causing the emissions if Step 2 specified above fails to result in effective mitigation. [2]	N/A	N/A	N/A

AQCMP or designee name: Rubel Martinez

AQCMP or designee signature: Jenn Botden

Date: 11/16/18

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily

On Going Diesel Requirements	Date:	Notes:
Complete inventory sheet	11/16/18	In Compliance
Confirm all equipment are ARB tagged on both sides and tags are visible.	11/16/18	In Compliance
Make sure CEC approval tag is located on all equipment used onsite	11/16/18	In Compliance
Documentation of engine tier is on file for any new equipment	11/16/18	In Compliance
Note tier 4 or document retrofit equipment on tier 3 engines, provide other document if not meet these requirements for all engines 50 hp or greater	11/16/18	In Compliance
Monthly include a list of the owner of that equipment and a letter from each owner indicating that equipment has been properly maintained	11/16/18	In Compliance
All diesel heavy construction equipment shall not idle for more than 5 minutes, to the extent practical. Vehicles that need to idle as part of their normal operation (such as concrete trucks) are exempted from this requirement	11/16/18	In Compliance
A list of all other actions taken to control diesel construction related emissions	11/16/18	In Compliance

AQCMP or designee name: Rubal Martinez
Date: 11/19/18
AQCMP or designee signature: Jesse Botelen

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily
On Going Requirements

Area Affected:	Requirement:	Implemented (Y/N):	Notes:
Unpaved roads and disturbed areas in project and laydown area	Pre-water worksite before construction begins, and the project site shall be watered as frequently as necessary during construction. The watering frequency may be reduced in periods of precipitation	Y	In Compliance
Unpaved areas	No vehicle shall exceed 10 miles per hour	Y	In Compliance
Construction site entrance	Post visible speed limit signs - Identify location of signs in notes	Y	In Compliance
Construction Eq Vehicle tires	Inspected and washed as necessary to clean off dirt prior to leaving site	Y	In Compliance
Tire washing / cleaning station	Gravel ramps 20 ft in length - Identify location in notes	Y	In Compliance
Unpaved Exits	Gravel or treated to prevent track-out - Identify location in notes	Y	In Compliance
Construction entrance	Enter only through treated entrance roadways unless alternative route approved by CPM	Y	In Compliance
Construction areas adjacent to any paved roadways	Provided with sandbags or other measures in SWPPP to prevent runoff	Y	In Compliance
Paved Areas	Swept at least twice daily (or less during periods of precipitation during active days of construction)	Y	In Compliance
Public Roadway existing construction site	500 feet of public roadway swept visually clean at least twice daily (or less during periods of precipitation) during active construction days or when dirt is visible	Y	In Compliance
Storage areas unactive for more than 10 days	Covered or treated with dust suppressants, and vehicle access will be restricted.	Y	In Compliance
Bulk transport vehicles on public roadways	Cover or wet materials load with at least 2 feet of freeboard	Y	In Compliance
Construction Areas that may be disturbed	Install wind erosions control techniques (such as gravel, windbreaks, water, chemical dust suppressants, and/or vegetation) until soil is stabilized or permanently covered w/ vegetation.	Y	In Compliance
Disturbed areas	Re-Vegetated as soon as possible	Y	In Compliance
Encina Power Station property	Haul trucks used during construction limited to traveling on paved or graveled surfaces at all times	Y	In Compliance

1. The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes will not result upon restarting the activity that caused the shut-down. The owner/operator may appeal to the CPM any directive from the AQCMM or AQCMM Delegate to shut down all activity, provided that the shutdown shall go into effect within one hour of the original determination, unless overruled by the CPM before that time.

2. The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes that could impact visibility on I5 will not occur upon restarting the activity that caused the shut-down.

Date: 11/19/18 | Terri Botelero | Rubel Martinez

Monitoring for Visible Dust Plumes with the potential to be transported off the project site:

Definition of Areas	Requirement	Specific Location / Area:
Identify Area	200 feet beyond the centerline of the construction of linear facilities	
Identify structures	within 100 feet upwind of any regularly occupied structures	
Identify distance / marker	50 feet upwind of I-5	

Reduce visible dust plumes to comply with CEC COC AQ-SC4 (with the exception of visible emissions within 50 feet upwind of the I-5 freeway)

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Within 15 minutes of making such a determination, require more intensive application of existing method - such as additional soil wetting	WATERED AS NEEDED PERIODICALLY ALL DAY	STARTED @ 5:00 AM	66 3SW Backfill Road Constr.
Step 2: If Step 1 fails to result in adequate mitigation within 30 minutes of the original determination, apply additional measures such as application of soil stabilizers, visqueen, or a geotech fabric.	N/A	N/A	N/A
Step 3: If Steps 1 and 2 fail to result in effective mitigation within 1 hour of the original determination, the AQCMM or AQCMM Delegate shall direct a temporary shutdown of the activity causing the emissions. [2]	N/A	N/A	N/A

Reduce visible dust plumes to comply with CEC COC AQ-SC4 within 50 feet upwind of the I-5 freeway

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Immediately cease the activities causing the visible dust plumes if any obscuration of visibility is occurring to drivers on I-5. Direct more intensive application of the existing mitigation methods immediately if the visible plumes are seen within 50 feet of I-5 but are not causing obscuration of visibility to drivers.	N/A	N/A	N/A
Step 2: Direct implementation of additional methods for dust suppression and monitor the start-up and/or continuation of the dust causing activities to ensure that the additional mitigation is effective.	N/A	N/A	N/A
Step 3: Direct a temporary shutdown of the activity causing the emissions if Step 2 specified above fails to result in effective mitigation. [2]	N/A	N/A	N/A

AQCMP or designee name: Rubel Martinez

AQCMP or designee signature: Jerri Boteler

Date: 11/19/18

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily

On Going Diesel Requirements	Date:	Notes:
Complete inventory sheet	11/19/18	In Compliance
Confirm all equipment are ARB tagged on both sides and tags are visible.	11/19/18	In Compliance
Make sure CEC approval tag is located on all equipment used onsite	11/19/18	In Compliance
Documentation of engine tier is on file for any new equipment	11/19/18	In Compliance
Note tier 4 or document retrofit equipment on tier 3 engines, provide other document if not meet these requirements for all engines 50 hp or greater	11/19/18	In Compliance
Monthly include a list of the owner of that equipment and a letter from each owner indicating that equipment has been properly maintained	11/19/18	In Compliance
All diesel heavy construction equipment shall not idle for more than 5 minutes, to the extent practical. Vehicles that need to idle as part of their normal operation (such as concrete trucks) are exempted from this requirement	11/19/18	In Compliance
A list of all other actions taken to control diesel construction related emissions	11/19/18	In Compliance

AQCMP or designee name: Rubel Martinez
Date: 11/20/18
AQCMP or designee signature: Terri Botelen

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily
On Going Requirements

Area Affected:	Requirement:	Implemented (Y/N):	Notes:
Unpaved roads and disturbed areas in project and laydown area	Pre-water worksite before construction begins, and the project site shall be watered as frequently as necessary during construction. The watering frequency may be reduced in periods of precipitation	Y	In Compliance
Unpaved areas	No vehicle shall exceed 10 miles per hour	Y	In Compliance
Construction site entrance	Post visible speed limit signs - identify location of signs in notes	Y	In Compliance
Construction Eq Vehicle tires	inspected and washed as necessary to clean off dirt prior to leaving site	Y	In Compliance
Tire washing / cleaning station	Gravel ramps 20 ft in length - identify location in notes	Y	In Compliance
Unpaved Exits	Gravel or treated to prevent track-out - identify location in notes	Y	In Compliance
Construction entrance	Enter only through treated entrance roadways unless alternative route approved by CPM	Y	In Compliance
Construction areas adjacent to any paved roadways	Provided with sandbags or other measures in SWPPP to prevent runoff	Y	In Compliance
Paved Areas	Swept at least twice daily (or less during periods of precipitation during active days of construction)	Y	In Compliance
Public Roadway existing construction site	500 feet of public roadway swept visually clean at least twice daily (or less during periods of precipitation) during active construction days or when dirt is visible	Y	In Compliance
Storage areas unactive for more than 10 days	Covered or treated with dust suppressants, and vehicle access will be restricted.	Y	In Compliance
Bulk transport vehicles on public roadways	Cover or wet materials load with at least 2 feet of freeboard	Y	In Compliance
Construction Areas that may be disturbed	Install wind erosions control techniques (such as gravel, windbreaks, water, chemical dust suppressants, and/or vegetation) until soil is stabilized or permanently covered w/ vegetation.	Y	In Compliance
Disturbed areas	Re-Vegetated as soon as possible	Y	In Compliance
Encina Power Station property	Haul trucks used during construction limited to traveling on paved or graveled surfaces at all times	Y	In Compliance

1 The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes will not result upon restarting the activity that caused the shut-down. The owner/operator may appeal to the CPM any directive from the AQCMM or AQCMM Delegate to shut down an activity, provided that the shutdown shall go into effect within one hour of the original determination, unless overruled by the CPM before that time.

2 The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes that could impact visibility on I-5 will not occur upon restarting the activity that caused the shut-down.

Date: 11/20/18 | Terri Botelen | Terri Botelen
Rubel Martinez

Monitoring for Visible Dust Plumes with the potential to be transported off the project site:

Definition of Areas	Requirement	Specific Location / Area:
Identify Area	200 feet beyond the centerline of the construction of linear facilities	
Identify structures	within 100 feet upwind of any regularly occupied structures	
Identify distance / marker	50 feet upwind of I-5	

Reduce visible dust plumes to comply with CEC COC AQ-SC4 (with the exception of visible emissions within 50 feet upwind of the I-5 freeway)

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Within 15 minutes of making such a determination, require more intensive application of existing method - such as additional soil wetting	WATERED FOR DUST CONTROL OFF & ON ALL DAY AS NEEDED	STARTED @ 5:10 AM	Asphault Crew Back Fill 64° 7 SW
Step 2: If Step 1 fails to result in adequate mitigation within 30 minutes of the original determination, apply additional measures such as application of soil stabilizers, visqueen, or a geotech fabric.	N/A	N/A	N/A
Step 3: If Steps 1 and 2 fail to result in effective mitigation within 1 hour of the original determination, the AQCMM or AQCMM Delegate shall direct a temporary shutdown of the activity causing the emissions. [1]	N/A	N/A	N/A

Reduce visible dust plumes to comply with CEC COC AQ-SC4 within 50 feet upwind of the I-5 freeway

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Immediately cease the activities causing the visible dust plumes if any obscuration of visibility is occurring to drivers on I-5. Direct more intensive application of the existing mitigation methods immediately if the visible plumes are seen within 50 feet of I-5 but are not causing obscuration of visibility to drivers.	N/A	N/A	N/A
Step 2: Direct implementation of additional methods for dust suppression and monitor the start-up and/or continuation of the dust causing activities to ensure that the additional mitigation is effective.	N/A	N/A	N/A
Step 3: Direct a temporary shutdown of the activity causing the emissions if Step 2 specified above fails to result in effective mitigation. [2]	N/A	N/A	N/A

AQCMP or designee name: Rubel Martinez

AQCMP or designee signature: Jesse Bolden

Date: 11/20/18

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily

On Going Diesel Requirements	Date:	Notes:
Complete inventory sheet	11/20/18	In Compliance
Confirm all equipment are ARB tagged on both sides and tags are visible.	11/20/18	In Compliance
Make sure CEC approval tag is located on all equipment used onsite	11/20/18	In Compliance
Documentation of engine tier is on file for any new equipment	11/20/18	In Compliance
Note tier 4 or document retrofit equipment on tier 3 engines, provide other document if not meet these requirements for all engines 50 hp or greater	11/20/18	In Compliance
Monthly include a list of the owner of that equipment and a letter from each owner indicating that equipment has been properly maintained	11/20/18	In Compliance
All diesel heavy construction equipment shall not idle for more than 5 minutes, to the extent practical. Vehicles that need to idle as part of their normal operation (such as concrete trucks) are exempted from this requirement	11/20/18	In Compliance
A list of all other actions taken to control diesel construction related emissions	11/20/18	In Compliance

AQCMP or designee name: Rubel Martinez
Date: 11/21/18
AQCMP or designee signature: Jerri Botelen

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily
On Going Requirements

Area Affected:	Requirement:	Implemented (Y/N):	Notes:
Unpaved roads and disturbed areas in project and laydown area	Pre-water worksite before construction begins, and the project site shall be watered as frequently as necessary during construction. The watering frequency may be reduced in periods of precipitation	Y	In Compliance
Unpaved areas	No vehicle shall exceed 10 miles per hour	Y	In Compliance
Construction site entrance	Post visible speed limit signs - Identify location of signs in notes	Y	In Compliance
Construction Eq Vehicle tires	Inspected and washed as necessary to clean off dirt prior to leaving site	Y	In Compliance
Tire washing / cleaning station	Gravel ramps 20 ft in length - Identify location in notes	Y	In Compliance
Unpaved Exits	Gravel or treated to prevent track-out - Identify location in notes	Y	In Compliance
Construction entrance	Enter only through treated entrance roadways unless alternative route approved by CPM	Y	In Compliance
Construction areas adjacent to any paved roadways	Provided with sandbags or other measures in SWPPP to prevent runoff	Y	In Compliance
Paved Areas	Swept at least twice daily (or less during periods of precipitation during active days of construction)	Y	In Compliance
Public Roadway existing construction site	500 feet of public roadway swept visually clean at least twice daily (or less during periods of precipitation) during active construction days or when dirt is visible	Y	In Compliance
Storage areas unactive for more than 10 days	Covered or treated with dust suppressants, and vehicle access will be restricted.	Y	In Compliance
Bulk transport vehicles on public roadways	Cover or wet materials load with at least 2 feet of freeboard	Y	In Compliance
Construction Areas that may be disturbed	Install wind erosions control techniques (such as gravel, windbreaks, water, chemical dust suppressants, and/or vegetation) until soil is stabilized or permanently covered w/ vegetation.	Y	In Compliance
Disturbed areas	Re-Vegetated as soon as possible	Y	In Compliance
Encina Power Station property	Haul trucks used during construction limited to travelling on paved or graveled surfaces at all times	Y	In Compliance

1 The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes will not result upon restarting the activity that caused the shut-down. The owner/operator may appeal to the CPM any directive from the AQCMM or AQCMM Delegate to shut down all activity, provided that the shutdown shall go into effect within one hour of the original determination, unless overruled by the CPM before that time.

2 The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes that could impact visibility on I-5 will not occur upon restarting the activity that caused the shut-down.

Date: 11/21/18 | Terri Botelho (signature) | Terri Botelho / Rubel Martinez

Monitoring for Visible Dust Plumes with the potential to be transported off the project site:

Definition of Areas	Requirement	Specific Location / Area:
Identify Area	200 feet beyond the centerline of the construction of linear facilities	
Identify structures	within 100 feet upwind of any regularly occupied structures	
Identify distance / marker	50 feet upwind of I-5	

Reduce visible dust plumes to comply with CEC COC AQ-SC4 (with the exception of visible emissions within 50 feet upwind of the I-5 freeway)

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Within 15 minutes of making such a determination, require more intensive application of existing method - such as additional soil wetting	WATERED FOR DUST CONTROL AS NEEDED	STARTED @ 5:00 AM	65° 5 SW BACKFILL
Step 2: If Step 1 fails to result in adequate mitigation within 30 minutes of the original determination, apply additional measures such as application of soil stabilizers, visqueen, or a geotech fabric.	N/A	N/A	N/A
Step 3: If Steps 1 and 2 fail to result in effective mitigation within 1 hour of the original determination, the AQCMM or AQCMM Delegate shall direct a temporary shutdown of the activity causing the emissions. [1]	N/A	N/A	N/A

Reduce visible dust plumes to comply with CEC COC AQ-SC4 within 50 feet upwind of the I-5 freeway

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Immediately cease the activities causing the visible dust plumes if any obscuration of visibility is occurring to drivers on I-5. Direct more intensive application of the existing mitigation methods immediately if the visible plumes are seen within 50 feet of I-5 but are not causing obscuration of visibility to drivers.	N/A	N/A	N/A
Step 2: Direct implementation of additional methods for dust suppression and monitor the start-up and/or continuation of the dust causing activities to ensure that the additional mitigation is effective.	N/A	N/A	N/A
Step 3: Direct a temporary shutdown of the activity causing the emissions if Step 2 specified above fails to result in effective mitigation. [2]	N/A	N/A	N/A

AQCMP or designee name: Rubel Martinez

AQCMP or designee signature: Jesse Botelero

Date: 11/21/18

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily

On Going Diesel Requirements	Date:	Notes:
Complete inventory sheet	11/21/18	In Compliance
Confirm all equipment are ARB tagged on both sides and tags are visible.	11/21/18	In Compliance
Make sure CEC approval tag is located on all equipment used onsite	11/21/18	In Compliance
Documentation of engine tier is on file for any new equipment	11/21/18	In Compliance
Note tier 4 or document retrofit equipment on tier 3 engines, provide other document if not meet these requirements for all engines 50 hp or greater	11/21/18	In Compliance
Monthly include a list of the owner of that equipment and a letter from each owner indicating that equipment has been properly maintained	11/21/18	In Compliance
All diesel heavy construction equipment shall not idle for more than 5 minutes, to the extent practical. Vehicles that need to idle as part of their normal operation (such as concrete trucks) are exempted from this requirement	11/21/18	In Compliance
A list of all other actions taken to control diesel construction related emissions	11/21/18	In Compliance

AQCMP or designee name: Rubel Martinez
Date: 11/26/18
AQCMP or designee signature: Jesse Botello

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily
On Going Requirements

Area Affected:	Requirement:	Implemented (Y/N):	Notes:
Unpaved roads and disturbed areas in project and laydown area	Pre-water worksite before construction begins, and the project site shall be watered as frequently as necessary during construction. The watering frequency may be reduced in periods of precipitation	Y	In Compliance
Unpaved areas	No vehicle shall exceed 10 miles per hour	Y	In Compliance
Construction site entrance	Post visible speed limit signs - identify location of signs in notes	Y	In Compliance
Construction Eq Vehicle tires	Inspected and washed as necessary to clean off dirt prior to leaving site	Y	In Compliance
Tire washing / cleaning station	Gravel ramps 20 ft in length - identify location in notes	Y	In Compliance
Unpaved Exits	Gravel or treated to prevent track-out - identify location in notes	Y	In Compliance
Construction entrance	Enter only through treated entrance roadways unless alternative route approved by CPM	Y	In Compliance
Construction areas adjacent to any paved roadways	Provided with sandbags or other measures in SWPPP to prevent runoff	Y	In Compliance
Paved Areas	Swept at least twice daily (or less during periods of precipitation during active days of construction)	Y	In Compliance
Public Roadway existing construction site	500 feet of public roadway swept visually clean at least twice daily (or less during periods of precipitation) during active construction days or when dirt is visible	Y	In Compliance
Storage areas unactive for more than 10 days [2]	Covered or treated with dust suppressants, and vehicle access will be restricted.	Y	In Compliance
Bulk transport vehicles on public roadways	Cover or wet materials load with at least 2 feet of freeboard	Y	In Compliance
Construction Areas that may be disturbed	Install wind erosions control techniques (such as gravel, windbreaks, water, chemical dust suppressants, and/or vegetation) until soil is stabilized or permanently covered w/ vegetation.	Y	In Compliance
Disturbed areas	Re-Vegetated as soon as possible	Y	In Compliance
Encina Power Station property	Haul trucks used during construction limited to traveling on paved or graveled surfaces at all times	Y	In Compliance

1. The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes will not result upon restarting the activity that caused the shut-down. The owner/operator may appeal to the CPM any directive from the AQCMM or AQCMM Delegate to shut down an activity, provided that the shutdown shall go into effect within one hour of the original determination, unless overruled by the CPM before that time.

2. The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes that could impact visibility on I-5 will not occur upon restarting the activity that caused the shut-down.

Date: 11/26/18 Jeff Boteler Terry Boteler
Rubel Martinez

Monitoring for Visible Dust Plumes with the potential to be transported off the project site:

Definition of Areas	Requirement	Specific Location / Area:
Identify Area	200 feet beyond the centerline of the construction of linear facilities	
Identify structures	within 100 feet upwind of any regularly occupied structures	
Identify distance / marker	50 feet upwind of I-5	

Reduce visible dust plumes to comply with CEC COC AQ-SC4 (with the exception of visible emissions within 50 feet upwind of the I-5 freeway)

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Within 15 minutes of making such a determination, require more intensive application of existing method - such as additional soil wetting	WATERED FOR Dust Control As NEEDED	Started @ 5:00AM	Backfill 60 2N
Step 2: If Step 1 fails to result in adequate mitigation within 30 minutes of the original determination, apply additional measures such as application of soil stabilizers, visqueen, or a geotech fabric.	N/A	N/A	N/A
Step 3: If Steps 1 and 2 fail to result in effective mitigation within 1 hour of the original determination, the AQCMM or AQCMM Delegate shall direct a temporary shutdown of the activity causing the emissions. [1]	N/A	N/A	N/A

Reduce visible dust plumes to comply with CEC COC AQ-SC4 within 50 feet upwind of the I-5 freeway

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Immediately cease the activities causing the visible dust plumes if any obscuration of visibility is occurring to drivers on I-5. Direct more intensive application of the existing mitigation methods immediately if the visible plumes are seen within 50 feet of I-5 but are not causing obscuration of visibility to drivers.	N/A	N/A	N/A
Step 2: Direct implementation of additional methods for dust suppression and monitor the start-up and/or continuation of the dust causing activities to ensure that the additional mitigation is effective.	N/A	N/A	N/A
Step 3: Direct a temporary shutdown of the activity causing the emissions if Step 2 specified above fails to result in effective mitigation. [2]	N/A	N/A	N/A

AQCMP or designee name: Rubel Martinez

AQCMP or designee signature: Jenn Botelen

Date: 11/26/18

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily

On Going Diesel Requirements	Date:	Notes:
Complete inventory sheet	11/26/18	In Compliance
Confirm all equipment are ARB tagged on both sides and tags are visible.	11/26/18	In Compliance
Make sure CEC approval tag is located on all equipment used onsite	11/26/18	In Compliance
Documentation of engine tier is on file for any new equipment	11/26/18	In Compliance
Note tier 4 or document retrofit equipment on tier 3 engines, provide other document if not meet these requirements for all engines 50 hp or greater	11/26/18	In Compliance
Monthly include a list of the owner of that equipment and a letter from each owner indicating that equipment has been properly maintained	11/26/18	In Compliance
All diesel heavy construction equipment shall not idle for more than 5 minutes, to the extent practical. Vehicles that need to idle as part of their normal operation (such as concrete trucks) are exempted from this requirement	11/26/18	In Compliance
A list of all other actions taken to control diesel construction related emissions	11/26/18	In Compliance

AQCMP or designee name: Rubel Martinez Teren Botelen

AQCMP or designee signature: Teren Botelen

Date: 11/27/18

Air Quality/Construction Mitigation Manager or Designee to Complete Checklist Daily

On Going Requirements

Area Affected:	Requirement:	Implemented (Y/N):	Notes:
Unpaved roads and disturbed areas in project and laydown area	Pre-water worksite before construction begins, and the project site shall be watered as frequently as necessary during construction. The watering frequency may be reduced in periods of precipitation	Y	In Compliance
Unpaved areas	No vehicle shall exceed 10 miles per hour	Y	In Compliance
Construction site entrance	Post visible speed limit signs - Identify location of signs in notes	Y	In Compliance
Construction Eq Vehicle tires	Inspected and washed as necessary to clean off dirt prior to leaving site	Y	In Compliance
Tire washing / cleaning station	Gravel ramps 20 ft in length - Identify location in notes	Y	In Compliance
Unpaved Exits	Gravel or treated to prevent track-out - Identify location in notes	Y	In Compliance
Construction entrance	Enter only through treated entrance roadways unless alternative route approved by CPM	Y	In Compliance
Construction areas adjacent to any paved roadways	Provided with sandbags or other measures in SWPPP to prevent runoff	Y	In Compliance
Paved Areas	Swept at least twice daily (or less during periods of precipitation during active days of construction)	Y	In Compliance
Public Roadway existing construction site	500 feet of public roadway swept visually clean at least twice daily (or less during periods of precipitation) during active construction days or when dirt is visible	Y	In Compliance
Storage areas unactive for more than 10 days	Covered or treated with dust suppressants, and vehicle access will be restricted.	Y	In Compliance
Bulk transport vehicles on public roadways	Cover or wet materials load with at least 2 feet of freeboard	Y	In Compliance
Construction Areas that may be disturbed	Install wind erosions control techniques (such as gravel, windbreaks, water, chemical dust suppressants, and/or vegetation) until soil is stabilized or permanently covered w/ vegetation.	Y	In Compliance
Disturbed areas	Re-Vegetated as soon as possible	Y	In Compliance
Encina Power Station property	Haul trucks used during construction limited to traveling on paved or graveled surfaces at all times	Y	In Compliance

1 The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes will not result upon restarting the activity that caused the shut-down. The owner/operator may appeal to the CPM any directive from the AQCMM or AQCMM Delegate to shut down an activity, provided that the shutdown shall go into effect within one hour of the original determination, unless overruled by the CPM before that time.

2 The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes that could impact visibility on I-5 will not occur upon restarting the activity that caused the shut-down.

Date: 11/27/18 Jesse Botelho Jesse Botelho
Rubel Martinez

Monitoring for Visible Dust Plumes with the potential to be transported off the project site:

Definition of Areas	Requirement	Specific Location / Area:
Identify Area	200 feet beyond the centerline of the construction of linear facilities	
Identify structures	within 100 feet upwind of any regularly occupied structures	
Identify distance / marker	50 feet upwind of I-5	

Reduce visible dust plumes to comply with CEC COC AQ-SC4 (with the exception of visible emissions within 50 feet upwind of the I-5 freeway)

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Within 15 minutes of making such a determination, require more intensive application of existing method - such as additional soil wetting	WATERED AS DUST CONTROL AS NEEDED	STARTED @ 5:00 AM	Asphalt crew Concrete Trucks Back-fill crew
Step 2: If Step 1 fails to result in adequate mitigation within 30 minutes of the original determination, apply additional measures such as application of soil stabilizers, visqueen, or a geotech fabric.	N/A	N/A	67° 5 SW N/A
Step 3: If Steps 1 and 2 fail to result in effective mitigation within 1 hour of the original determination, the AQCMM or AQCMM Delegate shall direct a temporary shutdown of the activity causing the emissions. [1]	N/A	N/A	N/A

Reduce visible dust plumes to comply with CEC COC AQ-SC4 within 50 feet upwind of the I-5 freeway

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Immediately cease the activities causing the visible dust plumes if any obscuration of visibility is occurring to drivers on I-5. Direct more intensive application of the existing mitigation methods immediately if the visible plumes are seen within 50 feet of I-5 but are not causing obscuration of visibility to drivers.	N/A	N/A	N/A
Step 2: Direct implementation of additional methods for dust suppression and monitor the start-up and/or continuation of the dust causing activities to ensure that the additional mitigation is effective.	N/A	N/A	N/A
Step 3: Direct a temporary shutdown of the activity causing the emissions if Step 2 specified above fails to result in effective mitigation. [2]	N/A	N/A	

AQCMP or designee name: Rubel Martinez

AQCMP or designee signature: Terra Botelero

Date: 11/27/18

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily

On Going Diesel Requirements	Date:	Notes:
Complete inventory sheet	11/27/18	In Compliance
Confirm all equipment are ARB tagged on both sides and tags are visible.	11/27/18	In Compliance
Make sure CEC approval tag is located on all equipment used onsite	11/27/18	In Compliance
Documentation of engine tier is on file for any new equipment	11/27/18	In Compliance
Note tier 4 or document retrofit equipment on tier 3 engines, provide other document if not meet these requirements for all engines 50 hp or greater	11/27/18	In Compliance
Monthly include a list of the owner of that equipment and a letter from each owner indicating that equipment has been properly maintained	11/27/18	In Compliance
All diesel heavy construction equipment shall not idle for more than 5 minutes, to the extent practical. Vehicles that need to idle as part of their normal operation (such as concrete trucks) are exempted from this requirement	11/27/18	In Compliance
A list of all other actions taken to control diesel construction related emissions	11/27/18	In Compliance

AQCMP or designee name: Rubel Martinez
Date: 11/28/18
AQCMP or designee signature: Jesse Botello

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily
On Going Requirements

Area Affected:	Requirement:	Implemented (Y/N):	Notes:
Unpaved roads and disturbed areas in project and laydown area	Pre-water worksite before construction begins, and the project site shall be watered as frequently as necessary during construction. The watering frequency may be reduced in periods of precipitation	Y	In Compliance
Unpaved areas	No vehicle shall exceed 10 miles per hour	Y	In Compliance
Construction site entrance	Post visible speed limit signs - identify location of signs in notes	Y	In Compliance
Construction Eq Vehicle tires	Inspected and washed as necessary to clean off dirt prior to leaving site	Y	In Compliance
Tire washing / cleaning station	Gravel ramps 20 ft in length - identify location in notes	Y	In Compliance
Unpaved Exits	Gravel or treated to prevent track-out - identify location in notes	Y	In Compliance
Construction entrance	Enter only through treated entrance roadways unless alternative route approved by CPM	Y	In Compliance
Construction areas adjacent to any paved roadways	Provided with sandbags or other measures in SWPPP to prevent runoff	Y	In Compliance
Paved Areas	Swept at least twice daily (or less during periods of precipitation during active days of construction)	Y	In Compliance
Public Roadway existing construction site	500 feet of public roadway swept visually clean at least twice daily (or less during periods of precipitation) during active construction days or when dirt is visible	Y	In Compliance
Storage areas unactive for more than 10 days	Covered or treated with dust suppressants, and vehicle access will be restricted.	Y	In Compliance
Bulk transport vehicles on public roadways	Cover or wet materials load with at least 2 feet of freeboard	Y	In Compliance
Construction Areas that may be disturbed	Install wind erosions control techniques (such as gravel, windbreaks, water, chemical dust suppressants, and/or vegetation) until soil is stabilized or permanently covered w/ vegetation.	Y	In Compliance
Disturbed areas	Re-Vegetated as soon as possible	Y	In Compliance
Encina Power Station property	Haul trucks used during construction limited to traveling on paved or graveled surfaces at all times	Y	In Compliance

1. The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes will not result upon restarting the activity that caused the shut-down. The owner/operator may appeal to the CPM any directive from the AQCMM or AQCMM Delegate to shut down an activity, provided that the shutdown shall go into effect within one hour of the original determination, unless overruled by the CPM before that time.

2. The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes that could impact visibility on I-5 will not occur upon restarting the activity that caused the shut-down.

Date: 11/28/18 Terri Boteler

Rubel Martinez

Monitoring for Visible Dust Plumes with the potential to be transported off the project site:

Definition of Areas	Requirement	Specific Location / Area:
Identify Area	200 feet beyond the centerline of the construction of linear facilities	
Identify structures	within 100 feet upwind of any regularly occupied structures	
Identify distance / marker	50 feet upwind of I-5	

Reduce visible dust plumes to comply with CEC COC AQ-SC4 (with the exception of visible emissions within 50 feet upwind of the I-5 freeway)

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Within 15 minutes of making such a determination, require more intensive application of existing method - such as additional soil wetting	WATERED FOR Dust Control As NEEDED	STARTED @ 5:00AM	Backfill 65° 55
Step 2: If Step 1 fails to result in adequate mitigation within 30 minutes of the original determination, apply additional measures such as application of soil stabilizers, visqueen, or a geotech fabric.	N/A	N/A	N/A
Step 3: If Steps 1 and 2 fail to result in effective mitigation within 1 hour of the original determination, the AQCMM or AQCMM Delegate shall direct a temporary shutdown of the activity causing the emissions. [1]	N/A	N/A	N/A

Reduce visible dust plumes to comply with CEC COC AQ-SC4 within 50 feet upwind of the I-5 freeway

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Immediately cease the activities causing the visible dust plumes if any obscuration of visibility is occurring to drivers on I-5. Direct more intensive application of the existing mitigation methods immediately if the visible plumes are seen within 50 feet of I-5 but are not causing obscuration of visibility to drivers.	N/A	N/A	N/A
Step 2: Direct implementation of additional methods for dust suppression and monitor the start-up and/or continuation of the dust causing activities to ensure that the additional mitigation is effective.	N/A	N/A	N/A
Step 3: Direct a temporary shutdown of the activity causing the emissions if Step 2 specified above fails to result in effective mitigation. [2]	N/A	N/A	N/A

AQCMP or designee name: Rubel Martinez

AQCMP or designee signature: Jesse Botelen

Date: 11/28/18

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily

On Going Diesel Requirements	Date:	Notes:
Complete inventory sheet	11/28/18	In Compliance
Confirm all equipment are ARB tagged on both sides and tags are visible.	11/28/18	In Compliance
Make sure CEC approval tag is located on all equipment used onsite	11/28/18	In Compliance
Documentation of engine tier is on file for any new equipment	11/28/18	In Compliance
Note tier 4 or document retrofit equipment on tier 3 engines, provide other document if not meet these requirements for all engines 50 hp or greater	11/28/18	In Compliance
Monthly include a list of the owner of that equipment and a letter from each owner indicating that equipment has been properly maintained	11/28/18	In Compliance
All diesel heavy construction equipment shall not idle for more than 5 minutes, to the extent practical. Vehicles that need to idle as part of their normal operation (such as concrete trucks) are exempted from this requirement	11/28/18	In Compliance
A list of all other actions taken to control diesel construction related emissions	11/28/18	In Compliance

AQCMP or designee name: Rubel Martinez

Date: 11/29/18

AQCMP or designee signature: Terra Botelen

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily
On Going Requirements

Area Affected:	Requirement:	Implemented (Y/N):	Notes:
Unpaved roads and disturbed areas in project and laydown area	Pre-water worksite before construction begins, and the project site shall be watered as frequently as necessary during construction. The watering frequency may be reduced in periods of precipitation	Y	In Compliance
Unpaved areas	No vehicle shall exceed 10 miles per hour	Y	In Compliance
Construction site entrance	Post visible speed limit signs - identify location of signs in notes	Y	In Compliance
Construction Eq Vehicle tires	Inspected and washed as necessary to clean off dirt prior to leaving site	Y	In Compliance
Tire washing / cleaning station	Gravel ramps 20 ft in length - identify location in notes	Y	In Compliance
Unpaved Exits	Gravel or treated to prevent track-out - identify location in notes	Y	In Compliance
Construction entrance	Enter only through treated entrance roadways unless alternative route approved by CPM	Y	In Compliance
Construction areas adjacent to any paved roadways	Provided with sandbags or other measures in SWPPP to prevent runoff	Y	In Compliance
Paved Areas	Swept at least twice daily (or less during periods of precipitation during active days of construction)	Y	In Compliance
Public Roadway existing construction site	500 feet of public roadway swept visually clean at least twice daily (or less during periods of precipitation) during active construction days or when dirt is visible	Y	In Compliance
Storage areas unactive for more than 10 days	Covered or treated with dust suppressants, and vehicle access will be restricted.	Y	In Compliance
Bulk transport vehicles on public roadways	Cover or wet materials load with at least 2 feet of freeboard	Y	In Compliance
Construction Areas that may be disturbed	Install wind erosions control techniques (such as gravel, windbreaks, water, chemical dust suppressants, and/or vegetation) until soil is stabilized or permanently covered w/ vegetation.	Y	In Compliance
Disturbed areas	Re-Vegetated as soon as possible	Y	In Compliance
Encina Power Station property	Haul trucks used during construction limited to traveling on paved or graveled surfaces at all times	Y	In Compliance

1. The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes will not result upon restarting the activity that caused the shut-down. The owner/operator may appeal to the CPM any directive from the AQCMM or AQCMM Delegate to shut down an activity, provided that the shutdown shall go into effect within one hour of the original determination, unless overruled by the CPM before that time.

2 The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes that could impact visibility on I-5 will not occur upon restarting the activity that caused the shut-down.

Date: 11/29/18 Jesse Boteler Tekka Boteler
Rubel Martinez

Monitoring for Visible Dust Plumes with the potential to be transported off the project site:

Definition of Areas	Requirement	Specific Location / Area:
Identify Area	200 feet beyond the centerline of the construction of linear facilities	
Identify structures	within 100 feet upwind of any regularly occupied structures	
Identify distance / marker	50 feet upwind of I-5	

Reduce visible dust plumes to comply with CEC COC AQ-SC4 (with the exception of visible emissions within 50 feet upwind of the I-5 freeway)

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Within 15 minutes of making such a determination, require more intensive application of existing method - such as additional soil wetting	WATERED FOR Dust Control AS NEEDED	STARTED @ 5:00 AM	LAST of the ROAD WORK Back FILL
Step 2: If Step 1 fails to result in adequate mitigation within 30 minutes of the original determination, apply additional measures such as application of soil stabilizers, visqueen, or a geotech fabric.	N/A	N/A	630 26 SW N/A
Step 3: If Steps 1 and 2 fail to result in effective mitigation within 1 hour of the original determination, the AQCMM or AQCMM Delegate shall direct a temporary shutdown of the activity causing the emissions. [1]	N/A	N/A	N/A

Reduce visible dust plumes to comply with CEC COC AQ-SC4 within 50 feet upwind of the I-5 freeway

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Immediately cease the activities causing the visible dust plumes if any obscuration of visibility is occurring to drivers on I-5. Direct more intensive application of the existing mitigation methods immediately if the visible plumes are seen within 50 feet of I-5 but are not causing obscuration of visibility to drivers.	N/A	N/A	N/A
Step 2: Direct implementation of additional methods for dust suppression and monitor the start-up and/or continuation of the dust causing activities to ensure that the additional mitigation is effective.	N/A	N/A	N/A
Step 3: Direct a temporary shutdown of the activity causing the emissions if Step 2 specified above fails to result in effective mitigation. [2]	N/A	N/A	N/A

AQCMP or designee name: Rubel Martinez

AQCMP or designee signature: Jerre Botelero

Date: 11/29/18

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily

On Going Diesel Requirements	Date:	Notes:
Complete inventory sheet	11/29/18	In Compliance
Confirm all equipment are ARB tagged on both sides and tags are visible.	11/29/18	In Compliance
Make sure CEC approval tag is located on all equipment used onsite	11/29/18	In Compliance
Documentation of engine tier is on file for any new equipment	11/29/18	In Compliance
Note tier 4 or document retrofit equipment on tier 3 engines, provide other document if not meet these requirements for all engines 50 hp or greater	11/29/18	In Compliance
Monthly include a list of the owner of that equipment and a letter from each owner indicating that equipment has been properly maintained	11/29/18	In Compliance
All diesel heavy construction equipment shall not idle for more than 5 minutes, to the extent practical. Vehicles that need to idle as part of their normal operation (such as concrete trucks) are exempted from this requirement	11/29/18	In Compliance
A list of all other actions taken to control diesel construction related emissions	11/29/18	In Compliance

AQCMP or designee name: Rubel Martinez
Date: 11/30/18
AQCMP or designee signature: Terri Botelen

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily
On Going Requirements

Area Affected:	Requirement:	Implemented (Y/N):	Notes:
Unpaved roads and disturbed areas in project and laydown area	Pre-water worksite before construction begins, and the project site shall be watered as frequently as necessary during construction. The watering frequency may be reduced in periods of precipitation	Y	In Compliance
Unpaved areas	No vehicle shall exceed 10 miles per hour	Y	In Compliance
Construction site entrance	Post visible speed limit signs - Identify location of signs in notes	Y	In Compliance
Construction Eq Vehicle tires	Inspected and washed as necessary to clean off dirt prior to leaving site	Y	In Compliance
Tire washing / cleaning station	Gravel ramps 20 ft in length - Identify location in notes	Y	In Compliance
Unpaved Exits	Gravel or treated to prevent track-out - Identify location in notes	Y	In Compliance
Construction entrance	Enter only through treated entrance roadways unless alternative route approved by CPM	Y	In Compliance
Construction areas adjacent to any paved roadways	Provided with sandbags or other measures in SWPPP to prevent runoff	Y	In Compliance
Paved Areas	Swept at least twice daily (or less during periods of precipitation during active days of construction)	Y	In Compliance
Public Roadway existing construction site	500 feet of public roadway swept visually clean at least twice daily (or less during periods of precipitation) during active construction days or when dirt is visible	Y	In Compliance
Storage areas unactive for more than 10 days	Covered or treated with dust suppresants, and vehicle access will be restricted.	Y	In Compliance
Bulk transport vehicles on public roadways	Cover or wet materials load with at least 2 feet of freeboard	Y	In Compliance
Construction Areas that may be disturbed	Install wind erosions control techniques (such as gravel, windbreaks, water, chemical dust suppressants, and/or vegetation) until soil is stabilized or permanently covered w/ vegetation.	Y	In Compliance
Disturbed areas	Re-Vegetated as soon as possible	Y	In Compliance
Encina Power Station property	Haul trucks used during construction limited to traveling on paved or graveled surfaces at all times	Y	In Compliance

1. The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes will not result upon restarting the activity that caused the shut-down. The owner/operator may appeal to the CPM any directive from the AQCMM or AQCMM Delegate to shut down an activity, provided that the shutdown shall go into effect within one hour of the original determination, unless overruled by the CPM before that time.

2. The activity shall not restart until the AQCMM or AQCMM Delegate is satisfied that appropriate additional mitigation or other site conditions have changed so that visual dust plumes that could impact visibility on I-5 will not occur upon restarting the activity that caused the shut-down.

Date: 11/30/18 | Rubel Martinez

Monitoring for Visible Dust Plumes with the potential to be transported off the project site:

Definition of Areas	Requirement	Specific Location / Area:
Identify Area	200 feet beyond the centerline of the construction of linear facilities	
Identify structures	within 100 feet upwind of any regularly occupied structures	
Identify distance / marker	50 feet upwind of I-5	

Reduce visible dust plumes to comply with CEC COC AQ-SC4 (with the exception of visible emissions within 50 feet upwind of the I-5 freeway)

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Within 15 minutes of making such a determination, require more intensive application of existing method - such as additional soil wetting	RAINY Conditions — NO Dust	N/A	Reg TRAFFIC 17°W 63°
Step 2: If Step 1 fails to result in adequate mitigation within 30 minutes of the original determination, apply additional measures such as application of soil stabilizers, visqueen, or a geotech fabric.	N/A	N/A	N/A
Step 3: If Steps 1 and 2 fail to result in effective mitigation within 1 hour of the original determination, the AQCMM or AQCMM Delegate shall direct a temporary shutdown of the activity causing the emissions. [1]	N/A	N/A	N/A

Reduce visible dust plumes to comply with CEC COC AQ-SC4 within 50 feet upwind of the I-5 freeway

Area Affected / Source:		Date / Time Identified:	
	Mitigation Measure Implemented:	Time Implemented	Notes
Step 1: Immediately cease the activities causing the visible dust plumes if any obscuration of visibility is occurring to drivers on I-5. Direct more intensive application of the existing mitigation methods immediately if the visible plumes are seen within 50 feet of I-5 but are not causing obscuration of visibility to drivers.	N/A	N/A	N/A
Step 2: Direct implementation of additional methods for dust suppression and monitor the start-up and/or continuation of the dust causing activities to ensure that the additional mitigation is effective.	N/A	N/A	N/A
Step 3: Direct a temporary shutdown of the activity causing the emissions if Step 2 specified above fails to result in effective mitigation. [2]	N/A	N/A	N/A

AQCMP or designee name: Rubel Martinez

AQCMP or designee signature: Jerre Botelev

Date: 11/30/18

Air Quality Construction Mitigation Manager or Designee to Complete Checklist Daily

On Going Diesel Requirements	Date:	Notes:
Complete inventory sheet	11/30/18	In Compliance
Confirm all equipment are ARB tagged on both sides and tags are visible.	11/30/18	In Compliance
Make sure CEC approval tag is located on all equipment used onsite	11/30/18	In Compliance
Documentation of engine tier is on file for any new equipment	11/30/18	In Compliance
Note tier 4 or document retrofit equipment on tier 3 engines, provide other document if not meet these requirements for all engines 50 hp or greater	11/30/18	In Compliance
Monthly include a list of the owner of that equipment and a letter from each owner indicating that equipment has been properly maintained	11/30/18	In Compliance
All diesel heavy construction equipment shall not idle for more than 5 minutes, to the extent practical. Vehicles that need to idle as part of their normal operation (such as concrete trucks) are exempted from this requirement	11/30/18	In Compliance
A list of all other actions taken to control diesel construction related emissions	11/30/18	In Compliance

Carlsbad Energy Center LLC
5790 Fleet Street, Suite 200
Carlsbad, CA 92008
Phone: 760-710-2156
Fax: 760-710-2158

Attachment B
Diesel Engine Tier and Maintenance Documentation

California Environmental Protection Agency AIR RESOURCES BOARD	CATERPILLAR, INC.	EXECUTIVE ORDER U-R-001-0290 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the December 15, 1998 Settlement Agreement between the Air Resources Board and the manufacturer, and any modifications thereof to the Settlement Agreement;

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engine and emission control system produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2006	6CPXL15.2ESK	15.2	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Direct Diesel Injection, Turbocharger, Charge Air Cooler and Engine Control Module	Loader, Tractor, Generator, Off-road Vehicle

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
450 ≤ KW < 560	Tier 3	STD	N/A	N/A	4.0	3.5	0.20	20	15	50
		CERT	--	--	3.4	3.4	0.15	6	1	8

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 21st day of December 2005.

Raphael Susnowitz

for Allen Lyons, Chief
Mobile Source Operations Division

ATTACHMENT 1 OF 1

Engine Model Summary Form

Manufacturer: **CATERPILLAR INC.**
Engine category: **Nonroad Over 50 Hp**
EPA Engine Family: **6CPXL15.2ESK**
Mfr Family Name: **NA**
Process Code: **New Submission**

U-R-001-0290

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
1 Cert Engine	C15	717@1800	399	241.7	NA	NA	NA	EM,DI,TC,ECM,CAC
2	C15	412@2100	222	156.5	1465@1400	292	137.7	EM,DI,TC,ECM,CAC
3	C15	361@2100	194	137.0	1283@1400	259	122.1	EM,DI,TC,ECM,CAC
4	C15	347@1850	197	122.8	1449@1300	296	129.4	EM,DI,TC,ECM,CAC
5	C15	475@2100	248	175.1	1601@1400	327	154.1	EM,DI,TC,ECM,CAC
6	C15	433@1800	246	148.8	1516@1400	316	148.7	EM,DI,TC,ECM,CAC
7	C15	447@1800	261	157.8	1305@1350	269	122.0	EM,DI,TC,ECM,CAC
8	C15	430@1800	254	153.5	1322@1425	272	130.1	EM,DI,TC,ECM,CAC
9	C15	457@1700	273	155.8	1779@1200	360	145.4	EM,DI,TC,ECM,CAC
10	C15	469@1800	269	162.6	1779@1200	356	143.6	EM,DI,TC,ECM,CAC
11	C15	436@1700	255	145.8	1692@1200	344	138.9	EM,DI,TC,ECM,CAC
12	C15	413@1700	244	139.4	1606@1200	324	130.8	EM,DI,TC,ECM,CAC
13	C15	540@2000	288	193.8	1736@1400	351	165.5	EM,DI,TC,ECM,CAC
14	C15	540@2100	280	198.0	1817@1400	364	171.2	EM,DI,TC,ECM,CAC
15	C15	580@2100	309	218.3	1954@1400	389	183.1	EM,DI,TC,ECM,CAC
16	C15	595@2100	318	224.3	2005@1400	398	187.3	EM,DI,TC,ECM,CAC
17	C15	401@1800	235	142.0	1387@1250	286	120.1	EM,DI,TC,ECM,CAC
18	C15	375@1800	219	132.4	1354@1250	278	116.9	EM,DI,TC,ECM,CAC
19	C15	401@1900	218	139.0	1438@1200	296	119.4	EM,DI,TC,ECM,CAC
20	C15	408@1700	244	139.4	1589@1200	326	131.7	EM,DI,TC,ECM,CAC
21	C15	389@1700	232	132.9	1512@1200	311	125.7	EM,DI,TC,ECM,CAC
22	C15	369@1700	221	126.4	1435@1200	299	120.6	EM,DI,TC,ECM,CAC
23	C15	394@1800	231	139.7	1498@1200	308	124.2	EM,DI,TC,ECM,CAC
24	C15	359@1800	210	127.0	1286@1200	266	107.4	EM,DI,TC,ECM,CAC
25	C15	354@1800	205	123.8	1285@1200	268	108.2	EM,DI,TC,ECM,CAC
26	C15	331@1800	193	117.1	1232@1200	258	104.2	EM,DI,TC,ECM,CAC
27	C15	347@1850	207	128.7	1449@1300	297	130.0	EM,DI,TC,ECM,CAC
28	C15	409@1800	240	145.4	1561@1200	319	129.0	EM,DI,TC,ECM,CAC
29	C15	440@2100	231	162.8	1482@1200	301	141.9	EM,DI,TC,ECM,CAC
30	C15	474@2100	244	172.8	1685@1400	342	161.2	EM,DI,TC,ECM,CAC
31	C15	530@2100	281	198.2	1850@1400	374	175.9	EM,DI,TC,ECM,CAC

31	C15	550@2100	287	190.2	1650@1400	374	175.9	EM,DI,TC,ECM,CA
32	C15	347@1850	200	124.5	1449@1300	297	129.8	EM,DI,TC,ECM,CA
33	C15	569@1800	329	199.1	NA	NA	NA	EM,DI,TC,ECM,CA
34	C15	569@1800	329	199.1	NA	NA	NA	EM,DI,TC,ECM,CA
35	C15	642@1800	363	171.0	NA	NA	NA	EM,DI,TC,ECM,CA
36	C15	642@1800	363	171.0	NA	NA	NA	EM,DI,TC,ECM,CA
37	C15	713@1800	397	240.0	NA	NA	NA	EM,DI,TC,ECM,CA
38	C15	713@1800	397	240.0	NA	NA	NA	EM,DI,TC,ECM,CA

Engine Model Summary Form

Manufacturer: **CATERPILLAR INC.**

Engine category: **Nonroad Over 50 Hp**

EPA Engine Family: **6CPXL15.2ESK**

Mfr Family Name:

Process Code: **Running Change -1**

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
39	C15	500@1900	292	187	1743@1300	357	156	EM,DI,TC,ECM,CA
40	C15	460@1800	279	169	1537@1300	325	142	EM,DI,TC,ECM,CA
41	C15	511@1800	310	188	1711@1300	358	156	EM,DI,TC,ECM,CA
42	C15	478@1800	280	170	1591@1300	322	141	EM,DI,TC,ECM,CA
43	C15	437@1800	258	156	1452@1300	295	129	EM,DI,TC,ECM,CA
44	C15	540@2100	281	198	1817@1400	362	170	EM,DI,TC,ECM,CA
45	C15	478@1800	280	170	1581@1300	322	141	EM,DI,TC,ECM,CA
46	C15	437@1800	258	156	1451@1300	295	129	EM,DI,TC,ECM,CA

Engine Model Summary Form

Manufacturer: **CATERPILLAR INC.**

Engine category: **Nonroad Over 50 Hp**

EPA Engine Family: **6CPXL15.2ESK**

Mfr Family Name:

Process Code: **Running Change - 2**

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
47	C15	642@1800	375	227	2264@1400	423	199	EM, DI, TC, ECM,
48	C15	642@1800	375	227	2264@1400	423	199	EM, DI, TC, ECM,
49	C15	503@1500	364	184	2002@1369	406	187	EM, DI, TC, ECM,
50	C15	503@1500	364	184	2002@1369	406	187	EM, DI, TC, ECM,
51	C15	436@1900	245	156	1538@1425	315	151	EM, DI, TC, ECM,
52	C15	436@1900	246	157	1538@1425	315	151	EM, DI, TC, ECM,

Engine Model Summary Form

Manufacturer: **CATERPILLAR INC.**

Engine category: **Nonroad Over 50 Hp**

EPA Engine Family: **6CPXL15.2ESK**

Mfr Family Name:

Process Code: **Running Change - 3**

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4 Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
33			332	201		361	170	
34			332	201		361	170	
35			373	226		409	192	
35			373	226		409	192	
53	C15	394@1800	231	140	1498@1200	308	124	EM, DI, TC, ECM,
54	C15	354@1800	202	122	1285@1200	262	106	EM, DI, TC, ECM,
55	C15	440@2100	231	163	1483@1400	301	142	EM, DI, TC, ECM,

Engine Model Summary Form

Manufacturer: **CATERPILLAR INC.**

Engine category: **Nonroad Over 50 Hp**

EPA Engine Family: **6CPXL15.2ESK**

Mfr Family Name:

Process Code: **Running Change - 4**

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
25			202	122.2		262	105.8	
26			192	116.0		251	101.4	
56	C15	475@2100	248	175.2	1601@1400	327	154.0	EM, DI, TC, ECM,

Engine Model Summary Form

Manufacturer: **CATERPILLAR INC.**

Engine category: **Nonroad Over 50 Hp**

EPA Engine Family: **6CPXL15.2ESK**

Mfr Family Name:

Process Code: **Running Change - 5**

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
25			207	125.1		266	107.4	
26			194	117.6		258	104.2	
47			365	220.7	NA	NA	NA	
48			365	220.7	NA	NA	NA	
49			344	173.6	NA	NA	NA	
50			344	173.6	NA	NA	NA	
55						312	147.1	
57	C15	393@1800	233	140.8	1330@1200	272	109.9	EM, DI, TC, ECM,
58	C15	362@1800	213	129.2	1282@1200	265	107.1	EM, DI, TC, ECM,
59	C15	362@1800	214	129.8	1283@1200	267	107.7	EM, DI, TC, ECM,
60	C15	333@1800	201	121.9	1235@1200	258	104.0	EM, DI, TC, ECM,

Engine Model Summary Form

Manufacturer: **CATERPILLAR INC.**

Engine category: **Nonroad Over 50 Hp**

EPA Engine Family: **6CPXL18.1ESK**

Mfr Family Name:

Process Code: **Running Change - 3**

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
20			312	210		399	175	
33	C18	632@1800	377	228	2107@1300	409	179	EM, DI, TC, ECM,
34	C18	596@1800	357	216	1985@1300	386	169	EM, DI, TC, ECM,
35	C18	630@2100	338	239	2203@1400	425	200	EM, DI, TC, ECM,

Engine Model Summary Form

Manufacturer: **CATERPILLAR INC.**

Engine category: **Nonroad Over 50 Hp**

EPA Engine Family: **6CPXL15.2ESK**

Mfr Family Name:

Process Code: **Running Change - 6**

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
61	C15	443@2100	230	162.2	1574@1400	317	149.5	EM, DI, TC, ECM,

Engine Model

Manufacturer: **CATERPILLAR INC.**

Engine category: **Nonroad Over 50 Hp**

EPA Engine Family: **6CPXL15.2ESK**

Mfr Family Name:

Process Code: **Running Change - 7**

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
19			220	140.6		304	122.6	
25			210	126.9		273	110.4	
62	C15	361@2100	188	132.9	1283@1400	263	123.7	EM, DI, TC, ECM,
63	C15	412@2100	213	150.3	1465@1400	300	141.3	EM, DI, TC, ECM,
64	C15	413@1700	244	139.5	1606@1200	324	130.8	EM, DI, TC, ECM,

Part Number

Manufacturer: **CATERPILLAR INC.**

Engine category: **Nonroad Over 50 Hp**

EPA Engine Family: **6CPXL15.2ESK**

Mfr Family Name:

Process Code: **Running Change - 7**

Engine Code	Engine Model	Injection Pump	Injector	Turbo Charge	Electronic Control Module	After Treatment Device (Specify)	Smoke Puff Limiter	Sensor Assemblies	
								Description	Part Number
40				2954114					
41				2954114					
47				2842711					
48				2842711					
48				2842711					
50				2842711					
62	C15	2800574	2800574	2367659	3012205	NA	3012205	SEE	COMMENTS
63	C15	2800574	2800574	2367659	3012207	NA	3012207	SEE	COMMENTS
64	C15	2530615	2530615	2303542	2995261	NA	2995261	SEE	COMMENTS

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California Environmental Protection Agency AIR RESOURCES BOARD	CATERPILLAR INC.	EXECUTIVE ORDER U-R-001-0394 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engine and emission control system produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2010	ACPXL15.2ESW	15.2	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Direct Diesel Injection, Turbocharger, Charge Air Cooler and Engine Control Module	Loader, Tractor, Generator and Industrial Equipment

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
225 ≤ KW < 560	Tier 3	STD	N/A	N/A	4.0	3.5	0.20	20	15	50
		CERT	--	--	3.7	3.4	0.18	14	5	19

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 24 day of November 2009.

Annette Hebert, Chief
Mobile Source Operations Division

ATTACHMENT 1 OF 2

Engine Model Summary Template

U-R-001-0394

10/17/09

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
ACPXL15.2ESW	Cert Test 3	C15	595@1800	357	216	2005@1400	415	195	CAC, EM. DI. TC, ECM
ACPXL15.2ESW	Cert Test 2	C15	713@1800	401	242.7	NA	NA	NA	EM. DI. TC,
ACPXL15.2ESW	1 Cert Engine	C15	717@1800	399	241.7	NA	NA	NA	EM. DI. TC,
ACPXL15.2ESW	2	C15	347@1850	200	124.4	1449@1300	296	129.4	EM. DI. TC,
ACPXL15.2ESW	3	C15	475@2100	249	176.1	1601@1400	333	157	EM. DI. TC,
ACPXL15.2ESW	4	C15	540@2100	281	198	1817@1400	364	171.2	EM. DI. TC,
ACPXL15.2ESW	5	C15	580@2100	309	218.3	1954@1400	389	183.1	EM. DI. TC,
ACPXL15.2ESW	6	C15	595@2100	318	224.3	2005@1400	398	187.3	EM. DI. TC,
ACPXL15.2ESW	7	C15	401@1900	220	140.6	1438@1200	304	122.6	EM. DI. TC,
ACPXL15.2ESW	8	C15	408@1700	244	139.4	1589@1200	326	131.7	EM. DI. TC,
ACPXL15.2ESW	9	C15	389@1700	232	132.9	1512@1200	311	125.7	EM. DI. TC,
ACPXL15.2ESW	10	C15	369@1700	221	126.4	1435@1200	299	120.6	EM. DI. TC,
ACPXL15.2ESW	11	C15	394@1800	231	139.7	1498@1200	308	124.2	EM. DI. TC,
ACPXL15.2ESW	12	C15	359@1800	210	127	1286@1200	266	107.4	EM. DI. TC,
ACPXL15.2ESW	13	C15	354@1800	210	126.9	1285@1200	273	110.4	EM. DI. TC,
ACPXL15.2ESW	14	C15	331@1800	194	117.6	1232@1200	258	104.2	EM. DI. TC,
ACPXL15.2ESW	15	C15	347@1850	207	128.7	1449@1300	297	130	EM. DI. TC,
ACPXL15.2ESW	16	C15	440@2100	231	162.8	1483@1400	314	148	EM. DI. TC,
ACPXL15.2ESW	17	C15	474@2100	244	172.8	1685@1400	342	161.2	EM. DI. TC,
ACPXL15.2ESW	18	C15	347@1850	200	124.5	1449@1300	297	129.8	EM. DI. TC,
ACPXL15.2ESW	19	C15	478@1800	280	170	1591@1300	322	141	EM. DI. TC,
ACPXL15.2ESW	20	C15	437@1800	258	156	1452@1300	295	129	EM. DI. TC,
ACPXL15.2ESW	21	C15	540@2100	281	198	1817@1400	379	179	EM. DI. TC,
ACPXL15.2ESW	22	C15	478@1800	280	170	1591@1300	322	141	EM. DI. TC,
ACPXL15.2ESW	23	C15	437@1800	258	156	1451@1300	295	129	EM. DI. TC,
ACPXL15.2ESW	24	C15	394@1800	231	140	1498@1200	308	124	EM. DI. TC,
ACPXL15.2ESW	25	C15	354@1800	202	122	1285@1200	262	106	EM. DI. TC,
ACPXL15.2ESW	26	C15	440@2100	231	163	1483@1400	312	147	EM. DI. TC,

ATTACHMENT 2 OF 2

Engine Model Summary Template

U-R-001-0394

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
ACPXL15.2ESW	27	C15	475@2100	249	176	1601@1400	333	157	CAC EM. DI. TC, ECM
ACPXL15.2ESW	28	C15	393@1800	233	140.8	1330@1200	272	109.9	EM. DI. TC,
ACPXL15.2ESW	29	C15	362@1800	213	129.2	1282@1200	265	107.1	EM. DI. TC,
ACPXL15.2ESW	30	C15	362@1800	214	129.8	1283@1200	267	107.7	EM. DI. TC,
ACPXL15.2ESW	31	C15	333@1800	201	121.9	1235@1200	258	104	EM. DI. TC,
ACPXL15.2ESW	32	C15	443@2100	230	162.2	1574@1400	317	149.5	EM. DI. TC,
ACPXL15.2ESW	33	C15	361@2100	191	135	1283@1400	264	124	EM. DI. TC,
ACPXL15.2ESW	34	C15	412@2100	213	150.3	1465@1400	300	141.3	EM. DI. TC,
ACPXL15.2ESW	35	C15	475@2100	249	176	1601@1400	333	157	EM. DI. TC,
ACPXL15.2ESW	36	C15	359@1800	209	127	1286@1200	268	108	EM. DI. TC,
ACPXL15.2ESW	37	C15	394@1800	229	139	1498@1200	306	123	EM. DI. TC,
ACPXL15.2ESW	38	C15	394@1800	230	140	1498@1200	307	124	EM. DI. TC,
ACPXL15.2ESW	39	C15	359@1800	210	128	1286@1200	269	109	EM. DI. TC,
ACPXL15.2ESW	40	C15	569@1800	331	201	NA	NA	NA	EM, DI, TC,
ACPXL15.2ESW	41	C15	643@1800	374	227	NA	NA	NA	EM, DI, TC,
ACPXL15.2ESW	42	C15	713@1800	406	246	NA	NA	NA	EM, DI, TC,
ACPXL15.2ESW	43	C15	569@1800	331	201	NA	NA	NA	EM, DI, TC,
ACPXL15.2ESW	44	C15	643@1800	374	227	NA	NA	NA	EM, DI, TC,
ACPXL15.2ESW	45	C15	713@1800	406	246	NA	NA	NA	EM, DI, TC,
ACPXL15.2ESW	46	C15	393@1800	251	152	1330@1200	282	114	EM, DI, TC,
ACPXL15.2ESW	47	C15	362@1800	233	141	1282@1200	272	110	EM, DI, TC,
ACPXL15.2ESW	48	C15	362@1800	233					

Attachment 1 of 2

Engine Model Summary Template

U-R-001-0394
5-18-10

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
ACPXL15.2ESW	Cert Test 3	C15	595@1800	357	216	2005@1400	415	195	EM,DI,TC,
ACPXL15.2ESW	Cert Test 2	C15	713@1800	401	242.7	NA	NA	NA	EM,DI,TC,
ACPXL15.2ESW	1 Cert Engine	C15	717@1800	399	241.7	NA	NA	NA	EM,DI,TC,
ACPXL15.2ESW	2	C15	347@1850	200	124.4	1449@1300	296	129.4	EM,DI,TC,
ACPXL15.2ESW	3	C15	475@2100	249	176.1	1601@1400	333	157	EM,DI,TC,
ACPXL15.2ESW	4	C15	540@2100	281	198	1817@1400	364	171.2	EM,DI,TC,
ACPXL15.2ESW	5	C15	580@2100	309	218.3	1954@1400	389	183.1	EM,DI,TC,
ACPXL15.2ESW	6	C15	595@2100	318	224.3	2005@1400	398	187.3	EM,DI,TC,
ACPXL15.2ESW	7	C15	401@1900	220	140.6	1438@1200	304	122.6	EM,DI,TC,
ACPXL15.2ESW	8	C15	408@1700	244	139.4	1589@1200	326	131.7	EM,DI,TC,
ACPXL15.2ESW	9	C15	389@1700	232	132.9	1512@1200	311	125.7	EM,DI,TC,
ACPXL15.2ESW	10	C15	369@1700	221	126.4	1435@1200	299	120.6	EM,DI,TC,
ACPXL15.2ESW	11	C15	394@1800	231	139.7	1498@1200	308	124.2	EM,DI,TC,
ACPXL15.2ESW	12	C15	359@1800	210	127	1286@1200	266	107.4	EM,DI,TC,
ACPXL15.2ESW	13	C15	354@1800	210	126.9	1285@1200	273	110.4	EM,DI,TC,
ACPXL15.2ESW	14	C15	331@1800	194	117.6	1232@1200	258	104.2	EM,DI,TC,
ACPXL15.2ESW	15	C15	347@1850	207	128.7	1449@1300	297	130	EM,DI,TC,
ACPXL15.2ESW	16	C15	440@2100	231	162.8	1483@1400	314	148	EM,DI,TC,
ACPXL15.2ESW	17	C15	474@2100	244	172.8	1685@1400	342	161.2	EM,DI,TC,
ACPXL15.2ESW	18	C15	347@1850	200	124.5	1449@1300	297	129.8	EM,DI,TC,
ACPXL15.2ESW	19	C15	478@1800	280	170	1591@1300	322	141	EM,DI,TC,
ACPXL15.2ESW	20	C15	437@1800	258	156	1452@1300	295	129	EM,DI,TC,
ACPXL15.2ESW	21	C15	540@2100	281	198	1817@1400	379	179	EM,DI,TC,
ACPXL15.2ESW	22	C15	478@1800	280	170	1591@1300	322	141	EM,DI,TC,
ACPXL15.2ESW	23	C15	437@1800	258	156	1451@1300	295	129	EM,DI,TC,
ACPXL15.2ESW	24	C15	394@1800	231	140	1498@1200	308	124	EM,DI,TC,
ACPXL15.2ESW	25	C15	354@1800	202	122	1285@1200	262	106	EM,DI,TC,
ACPXL15.2ESW	26	C15	440@2100	231	163	1483@1400	312	147	EM,DI,TC,

Attachment 2 of 2

Engine Model Summary Template

U-R-001-094
5-18-10

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
ACPXL15.2ESW	27	C15	475@2100	249	176	1601@1400	333	157	EM,DI,TC,
ACPXL15.2ESW	28	C15	393@1800	233	140.8	1330@1200	272	109.9	EM,DI,TC,
ACPXL15.2ESW	29	C15	362@1800	213	129.2	1282@1200	265	107.1	EM,DI,TC,
ACPXL15.2ESW	30	C15	362@1800	214	129.8	1283@1200	267	107.7	EM,DI,TC,
ACPXL15.2ESW	31	C15	333@1800	201	121.9	1235@1200	258	104	EM,DI,TC,
ACPXL15.2ESW	32	C15	443@2100	230	162.2	1574@1400	317	149.5	EM,DI,TC,
ACPXL15.2ESW	33	C15	361@2100	191	135	1283@1400	264	124	EM,DI,TC,
ACPXL15.2ESW	34	C15	412@2100	213	150.3	1465@1400	300	141.3	EM,DI,TC,
ACPXL15.2ESW	35	C15	475@2100	249	176	1601@1400	333	157	EM,DI,TC,
ACPXL15.2ESW	36	C15	359@1800	209	127	1286@1200	268	108	EM,DI,TC,
ACPXL15.2ESW	37	C15	394@1800	229	139	1498@1200	306	123	EM,DI,TC,
ACPXL15.2ESW	38	C15	394@1800	230	140	1498@1200	307	124	EM,DI,TC,
ACPXL15.2ESW	39	C15	359@1800	210	128	1286@1200	269	109	EM,DI,TC,
ACPXL15.2ESW	40	C15	569@1800	331	201	NA	NA	NA	EM,DI,TC,
ACPXL15.2ESW	41	C15	643@1800	374	227	NA	NA	NA	EM,DI,TC,
ACPXL15.2ESW	42	C15	713@1800	406	246	NA	NA	NA	EM,DI,TC,
ACPXL15.2ESW	43	C15	569@1800	331	201	NA	NA	NA	EM,DI,TC,
ACPXL15.2ESW	44	C15	643@1800	374	227	NA	NA	NA	EM,DI,TC,
ACPXL15.2ESW	45	C15	713@1800	406	246	NA	NA	NA	EM,DI,TC,
ACPXL15.2ESW	46	C15	393@1800	251	152	1330@1200	282	114	EM,DI,TC,
ACPXL15.2ESW	47	C15	362@1800	233	141	1282@1200	272	110	EM,DI,TC,
ACPXL15.2ESW	48	C15	362@1800	233	141	1282@1200	272	110	EM,DI,TC,
ACPXL15.2ESW	49	C15	333@1800	217	131	1235@1200	260	105	EM,DI,TC,
ACPXL15.2ESW	50	C15	436@1800	254	154	1689@1350	327	149	EM,DI,TC,
ACPXL15.2ESW	51	C15	595@1800	348	211	2005@1400	398	188	EM,DI,TC,
ACPXL15.2ESW	52	C15	354@1800	206	125	1285@1200	265	107	EM,DI,TC,
ACPXL15.2ESW	53	C15	354@1800	206	125	1285@1200	265	107	EM,DI,TC,
ACPXL15.2ESW	54	C15	580@2100	318	224	1954@1400	403	190	EM,DI,TC,

California Environmental Protection Agency AIR RESOURCES BOARD	CUMMINS INC.	EXECUTIVE ORDER U-R-002-0578 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2012	CCEXL06.7AAH	6.7	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Electronic Control Module, Exhaust Gas Recirculation, Diesel Oxidation Catalyst	Crane, Loader, Tractor, Dozer, Pump, Compressor, and Generator Set

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
75 ≤ kW < 130	Interim Tier 4 /ALT NOx	STD	0.19	3.4	N/A	5.0	0.02	N/A	N/A	N/A
		CERT	0.05	3.2	--	0.04	0.02	--	--	--

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 7 day of December 2011.

Annette Hebert, Chief
Mobile Source Operations Division

Engine Model Summary Template

U-12-002-0578 ATTACHMENT pg 1/1 8/2/2012

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
CCEXL06.7AAH	3098:FR92547	QSB6.7	173@2500	79	67	590@1500	115	58	DDI,ECM,TC,CAC, EGR , OC
CCEXL06.7AAH	3098:FR92548	QSB6.7	160@2500	79	66	540@1500	105	53	DDI,ECM,TC,CAC, EGR , OC
CCEXL06.7AAH	3098:FR92558	QSB6.7	173@2200	82	61	590@1500	114	58	DDI,ECM,TC,CAC, EGR , OC
CCEXL06.7AAH	3098:FR92556	QSB6.7	165@2200	81	60	540@1500	102	52	DDI,ECM,TC,CAC, EGR , OC
CCEXL06.7AAH	3098:FR92560	QSB6.7	155@2200	78	58	496@1500	94	47	DDI,ECM,TC,CAC, EGR , OC
CCEXL06.7AAH	3098:FR92575	QSB6.7	173@2100	83	59	590@1500	114	58	DDI,ECM,TC,CAC, EGR , OC
CCEXL06.7AAH	3098:FR92720	QSB6.7	168@2100	85	60	540@1500	107	54	DDI,ECM,TC,CAC, EGR , OC
CCEXL06.7AAH	3098:FR92577	QSB6.7	158@2100	81	57	590@1500	114	58	DDI,ECM,TC,CAC, EGR , OC
CCEXL06.7AAH	3098:FR92572	QSB6.7	146@2100	76	54	540@1500	107	54	DDI,ECM,TC,CAC, EGR , OC
CCEXL06.7AAH	3098:FR92568	QSB6.7	170@2000	89	60	485@1500	94	48	DDI,ECM,TC,CAC, EGR , OC
CCEXL06.7AAH	3098:FR94109	QSB6.7	173@2300	76	60	590@1500	108	55	DDI,ECM,TC,CAC, EGR , OC
CCEXL06.7AAH	3098:FR94110	QSB6.7	163@2300	73	60	540@1500	99	51	DDI,ECM,TC,CAC, EGR , OC

California Environmental Protection Agency **Air Resources Board**	**CUMMINS INC.**	**EXECUTIVE ORDER U-R-002-0598** New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2014	ECEXL04.5AAE	4.5	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Electronic Control Module, Exhaust Gas Recirculation, Diesel Oxidation Catalyst	Crane, Loader, Tractor, Dozer, Pump, Compressor, and Generator Set

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
75 ≤ kW < 130	Interim Tier 4 /ALT NOx	STD	0.19	3.4	N/A	5.0	0.02	N/A	N/A	N/A
		CERT	0.02	3.0	--	0.02	0.02	--	--	--

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 23rd day of May 2013.

Erik White, Chief
Mobile Source Operations Division

Engine Model Summary Template

U-R-002-0598 Attachment pg 1/1 5/9/2013

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
ECEXL04.5AAE	3670:FR93376	QSB4.5	163@2500	102	86	466@1500	130	66	DDI,ECM,TC,CAC, EGR , OC
ECEXL04.5AAE	3670:FR93377	QSB4.5	130@2500	86	73	457@1500	129	65	DDI,ECM,TC,CAC, EGR , OC
ECEXL04.5AAE	3670:FR93457	QSB4.5	115@2500	75	63	360@1500	102	52	DDI,ECM,TC,CAC, EGR , OC
ECEXL04.5AAE	3670:FR93458	QSB4.5	160@2300	111	86	460@1500	129	65	DDI,ECM,TC,CAC, EGR , OC
ECEXL04.5AAE	3670:FR93459	QSB4.5	130@2300	92	72	377@1500	107	54	DDI,ECM,TC,CAC, EGR , OC
ECEXL04.5AAE	3670:FR93460	QSB4.5	160@2200	114	84	460@1500	129	65	DDI,ECM,TC,CAC, EGR , OC
ECEXL04.5AAE	3670:FR93461	QSB4.5	130@2200	96	71	457@1500	129	65	DDI,ECM,TC,CAC, EGR , OC
ECEXL04.5AAE	3670:FR93462	QSB4.5	121@2200	89	66	347@1500	102	51	DDI,ECM,TC,CAC, EGR , OC
ECEXL04.5AAE	3670:FR93463	QSB4.5	110@2200	82	61	360@1500	105	53	DDI,ECM,TC,CAC, EGR , OC
ECEXL04.5AAE	3670:FR93464	QSB4.5	155@2000	115	77	460@1500	129	65	DDI,ECM,TC,CAC, EGR , OC
ECEXL04.5AAE	3670:FR93465	QSB4.5	140@2000	104	70	457@1500	129	65	DDI,ECM,TC,CAC, EGR , OC

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2016	GCEXL03.8AAA	3.8	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Electronic Control Module, Exhaust Gas Recirculation, Selective Catalytic Reduction – Urea, Ammonia Oxidation Catalyst	Crane, Loader, Tractor, Dozer, Pump, Compressor, and Other Industrial Equipment

The engine models and codes are attached.

The following are the exhaust certification standards (STD), or family emission limit(s) (FEL) as applicable, and certification levels (CERT) for non-methane hydrocarbon (NMHC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
56 ≤ kW ≤ 130	Tier 4 Final	STD	0.19	0.40	N/A	5.0	0.02	N/A	N/A	N/A
		FEL	N/A	N/A	N/A	N/A	0.04	N/A	N/A	N/A
		CERT	0.03	0.28	--	0.4	0.04	--	--	--

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has complied with the more stringent set of standards from the various power categories in conformance with Section 1039.230 (e) of the "California Exhaust Emission Standards and Test Procedures for 2008 and Later Tier 4 Off-Road Compression-Ignition Engines, Part I-C" adopted October 20, 2005 and last amended October 25, 2012.

BE IT FURTHER RESOLVED: That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

This Executive Order hereby supersedes Executive Order U-R-002-0640 dated December 17, 2015.

Executed at El Monte, California on this 20th day of April 2016.

Annette Hebert, Chief
Emissions Compliance, Automotive Regulations and Science Division

Engine Model Summary Template

U-12-002-0640-1 Attachment pg 1 of 1 4/5/2016

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
GCEXL03.8AAA	4142;FR94053	QSF3.8	130@2500	110	49.8	488@1600	110	39.6	SCR,DDI,TC,EGR,ECM
GCEXL03.8AAA	4142;FR94288	QSF3.8	120@2500	110	45.6	488@1600	110	39.6	SCR,DDI,TC,EGR,ECM
GCEXL03.8AAA	4142;FR94290	QSF3.8	130@2200	110	46.9	488@1600	110	39.6	SCR,DDI,TC,EGR,ECM
GCEXL03.8AAA	4142;FR94291	QSF3.8	120@2200	110	45.3	488@1600	110	39.6	SCR,DDI,TC,EGR,ECM
GCEXL03.8AAA	4142;FR94292	QSF3.8	100@2200	92	37.5	415@1600	92	32.9	SCR,DDI,TC,EGR,ECM
GCEXL03.8AAA	4142;FR95339	QSF3.8	100@2200	84.6	34.9	415@1600	95.2	39.2	SCR,DDI,TC,EGR,ECM

+ CAC, Amox

California Environmental Protection Agency Air Resources Board	CUMMINS INC.	EXECUTIVE ORDER U-R-002-0649 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2017	HCEXL04.5AAH	4.5	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Engine Control Module, Exhaust Gas Recirculation, Electronic Direct Injection, Turbocharger, Charge Air Cooler, Diesel Oxidation Catalyst, Selective Catalytic Reduction – Urea, Ammonia Oxidation Catalyst	Crane, Loader, Tractor, Dozer, Pump, and Compressor

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
75 ≤ kW < 130	Tier 4 Final	STD	0.19	0.40	N/A	5.0	0.02	N/A	N/A	N/A
		CERT	0.03	0.10	--	0.04	0.02	--	--	--

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 20 day of December 2016.

Annette Hebert, Chief
Emissions Compliance, Automotive Regulations and Science Division

U-12-002-0649

Attachment pg 1/1 12/7/2016

Engine Model Summary Template

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
HCEXL04.5AAH	4189.FR94118	QSB4.5	173@2500	115	97	520@1500	155	78	SCR,DOC,DDI,TC, EGR,CAC,ECM
HCEXL04.5AAH	4222.FR94220	QSB4.5	162@2500	109	93	466@1500	138	70	SCR,DOC,DDI,TC, EGR,CAC,ECM
HCEXL04.5AAH	4222.FR94221	QSB4.5	129@2500	92	77	457@1500	136	68.6	SCR,DOC,DDI,TC, EGR,CAC,ECM
HCEXL04.5AAH	4222.FR94222	QSB4.5	158@2300	112	87	460@1500	137	69	SCR,DOC,DDI,TC, EGR,CAC,ECM
HCEXL04.5AAH	4222.FR94223	QSB4.5	129@2300	95	74	378@1500	113	57	SCR,DOC,DDI,TC, EGR,CAC,ECM
HCEXL04.5AAH	4222.FR94224	QSB4.5	158@2200	117	86	460@1500	137	69	SCR,DOC,DDI,TC, EGR,CAC,ECM
HCEXL04.5AAH	4189.FR94593	QSB4.5	139@2200	104	77	440@1500	131	66	SCR,DOC,DDI,TC, EGR,CAC,ECM
HCEXL04.5AAH	4189.FR94225	QSB4.5	129@2200	98	73	430@1500	128	64.6	SCR,DOC,DDI,TC, EGR,CAC,ECM
HCEXL04.5AAH	4222.FR94226	QSB4.5	119@2200	92	68	347@1500	104	52.5	SCR,DOC,DDI,TC, EGR,CAC,ECM
HCEXL04.5AAH	4189.FR94227	QSB4.5	173@2000	141	94	520@1500	155	78	SCR,DOC,DDI,TC, EGR,CAC,ECM
HCEXL04.5AAH	4222.FR94228	QSB4.5	154@2000	125	84	460@1500	137	69	SCR,DOC,DDI,TC, EGR,CAC,ECM
HCEXL04.5AAH	4222.FR94229	QSB4.5	138@2000	113	76	457@1500	136	68.6	SCR,DOC,DDI,TC, EGR,CAC,ECM
HCEXL04.5AAH	4931.FR95210	QSB4.5	154@2000	125	84	460@1500	137	69	SCR,DOC,DDI,TC, EGR,CAC,ECM

tAway

California Environmental Protection Agency Air Resources Board	CUMMINS INC.	EXECUTIVE ORDER U-R-002-0651 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2017	HCEXL06.7AAK	6.7	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Electronic Control Module, Exhaust Gas Recirculation, Diesel Oxidation Catalyst, Selective Catalytic Reduction – Urea, Ammonia Oxidation Catalyst	Crane, Loader, Tractor, Dozer, Pump, Compressor, and Generator Set

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
75 ≤ kW ≤ 560	Tier 4 Final	OPTIONAL STD	0.19	0.40	N/A	3.5	0.02	N/A	N/A	N/A
		CERT	0.02	0.17	--	0.00	0.02	--	--	--

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has complied with the more stringent set of standards from the various power categories in conformance with Section 1039.230 (e) of the "California Exhaust Emission Standards and Test Procedures for New 2011 and Later Tier 4 Off-Road Compression-Ignition Engines, Parts I-D" adopted October 20, 2005 and last amended October 25, 2012.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 20 day of December 2016.

Annette Hebert, Chief
Emissions Compliance, Automotive Regulations and Science Division

U-R-002-0651

Attachment pg 1/2

1/26/2017

Engine Model Summary Template

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
HCEXL06.7AAK	3857:FR93809	QSB6.7	300@2500	149	126	770@1500	153	77	DDI,ECM,TC,
HCEXL06.7AAK	3857:FR93810	QSB6.7	275@2500	120	101	730@1500	137	69	DDI,ECM,TC,
HCEXL06.7AAK	3857:FR93811	QSB6.7	260@2500	124	104	730@1500	137	69	DDI,ECM,TC,
HCEXL06.7AAK	3857:FR93877	QSB6.7	225@2500	101	85	655@1500	122	62	DDI,ECM,TC,
HCEXL06.7AAK	3857:FR93878	QSB6.7	194@2300	92	71	590@1500	109	55	DDI,ECM,TC,
HCEXL06.7AAK	3857:FR93879	QSB6.7	260@2200	137	102	730@1500	137	69	DDI,ECM,TC,
HCEXL06.7AAK	3857:FR93880	QSB6.7	249@2200	117	87	730@1500	137	69	DDI,ECM,TC,
HCEXL06.7AAK	3857:FR93812	QSB6.7	225@2200	115	85	700@1500	131	66	DDI,ECM,TC,
HCEXL06.7AAK	3857:FR93876	QSB6.7	225@2200	115	85	770@1500	153	77	DDI,ECM,TC,
HCEXL06.7AAK	3857:FR93813	QSB6.7	200@2200	94	70	685@1500	128	65	DDI,ECM,TC,
HCEXL06.7AAK	3857:FR93881	QSB6.7	249@2000	127	86	730@1500	137	69	DDI,ECM,TC,
HCEXL06.7AAK	3857:FR93882	QSB6.7	225@2000	115	77	700@1500	131	66	DDI,ECM,TC,
HCEXL06.7AAK	3857:FR93883	QSB6.7	190@2000	96	65	597@1500	111	56	DDI,ECM,TC,
HCEXL06.7AAK	3857:FR93884	QSB6.7	215@1800	119	72	680@1350	131	60	DDI,ECM,TC,
HCEXL06.7AAK	3857:FR94862	QSB6.7	249@2000	127	86	730@1500	137	69	DDI,ECM,TC,
HCEXL06.7AAK	3857:FR94949	QSB6.7	225@2200	115	85	770@1500	153	77	DDI,ECM,TC,

+ Amx, SCR-u

U-R-002-0651

Attachment pg 2/2

1/26/2017

Engine Model Summary Template

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
HCEXL06.7AAK	3857:FR94986	QSB6.7	225@2000	112	76	591@1500	75.5	66	DDI,ECM,TC,
HCEXL06.7AAK	3856:FR93814	QSB6.7	173@2300	82	63	620@1500	119	60	DDI,ECM,TC,
HCEXL06.7AAK	3856:FR93885	QSB6.7	164@2300	79	61	540@1500	101	51	DDI,ECM,TC,
HCEXL06.7AAK	3856:FR93815	QSB6.7	173@2200	84	62	620@1500	119	60	DDI,ECM,TC,
HCEXL06.7AAK	3856:FR93886	QSB6.7	155@2200	77	57	496@1500	94	47	DDI,ECM,TC,
HCEXL06.7AAK	3856:FR93816	QSB6.7	173@2100	85	61	620@1500	119	60	DDI,ECM,TC,
HCEXL06.7AAK	3856:FR93887	QSB6.7	158@2100	81	58	620@1500	119	60	DDI,ECM,TC,
HCEXL06.7AAK	3856:FR93888	QSB6.7	146@2100	75	53	620@1500	119	60	DDI,ECM,TC,
HCEXL06.7AAK	3856:FR96039	QSB6.7	173@2200	85	64	560@2200	113	57	DDI,ECM,TC,

Added

+ Scania Amap

California Environmental Protection Agency AIR RESOURCES BOARD	JOHN DEERE POWER SYSTEMS	EXECUTIVE ORDER U-R-004-0441 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2012	CJDXL04.5211	4.5	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Charge Air Cooler, Diesel Oxidation Catalyst, Direct Diesel Injection, Electronic Control Module, Exhaust Gas Recirculation, Periodic Trap Oxidizer, Smoke Puff Limiter, Turbocharger	Tractor, Loaders, Dozer, Pump, Compressor, Generator Set, Other Industrial Equipment

The engine models and codes are attached.

The following are the exhaust certification standards (STD), or family emission limit(s) (FEL) as applicable, and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
75 ≤ kW < 130	Tier 4 Interim / ALT NOx	STD	0.19	3.4	N/A	5.0	0.02	N/A	N/A	N/A
		CERT	0.01	2.6	--	0.1	0.001	--	--	--

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 29 day of July 2011.

Annette Hebert, Chief
Mobile Source Operations Division

R/C Date: 8/27/2012

EO#: U-R-004-0441

Attachment: Page 1 of 2

Engine Model Summary Form

Manufacturer: **John Deere Power Systems**
Engine category: **Nonroad CI**
EPA Engine Family: **CJDXL04.5211**
Mfr Family Name: **350HBC**
Process Code: **Running Change**

1. Engine code	2. Engine Model	3. kW@RPM (SAE Gross)	4. Fuel Rate: mm/stroke@peak kW (for diesel only)	5. Fuel Rate: (kg/hr)@peak kW (for diesels only)	6. Torque (Nm) @RPM (SEA Gross)	7. Fuel Rate: mm/stroke@peak torque	8. Fuel Rate: (kW/hr)@peak torque	9. Emission Control Device Per SAE J1930
4045HFG92D	4045	99.0@1800	21.2@1800	3.89@1800				PTOX EM EGR SPL
4045HFC92V	4045	63.0@2400	65.8@2400	16.11@2400	333@1550	75.3@1550	11.91@1550	PTOX EM EGR SPL
4045HPRNT8	4045	104.0@2200	110.3@2200	24.75@2200	537@1500	123.6@1500	18.91@1500	PTOX EM EGR SPL
4045HFC92T	4045	74.0@2200	79.8@2200	17.91@2200	418@1550	94.8@1550	14.99@1550	PTOX EM EGR SPL
4045HFC92B	4045	86.0@2400	82.9@2400	20.29@2400	460@1550	101@1550	15.97@1550	PTOX EM EGR SPL
4045HFG92F	4045	67.0@1800	14.7@1800	2.7@1800				PTOX EM EGR SPL
4045HFC92F	4045	74.0@2200	77.7@2200	17.44@2200	427@1550	94.1@1550	14.88@1550	PTOX EM EGR SPL
4045HT070A	4045	104.0@2200	105.4@2200	23.65@2200	534@1550	115.6@1550	18.28@1550	PTOX EM EGR SPL
4045HFG92C	4045	67.0@1800	81.2@1800	14.91@1800				PTOX EM EGR SPL
4045HFC92L	4045	102.0@2200	103.1@2200	23.14@2200	517@1550	112.2@1550	17.74@1550	PTOX EM EGR SPL
4045HFG92E	4045	80.0@1800	17.2@1800	3.16@1800				PTOX EM EGR SPL
4045HFC92P	4045	86.0@2200	91.4@2200	20.51@2200	480@1550	106.2@1550	16.79@1550	PTOX EM EGR SPL
4045HFG92A	4045	99.0@1800	117.8@1800	21.63@1800				PTOX EM EGR SPL
4045HFC92U	4045	63.0@2400	66.2@2400	16.21@2400	333@1550	75.5@1550	11.94@1550	PTOX EM EGR SPL
4045HMC92A	4045	102.0@2200	106.8@2200	23.97@2200	530@1550	119.3@1550	18.86@1550	PTOX EM EGR SPL
4045HLV68	4045	91.0@2200	98@2200	21.99@2200	476@1550	107.9@1550	17.06@1550	PTOX EM EGR SPL
4045HFC92S	4045	74.0@2200	79.8@2200	17.91@2200	418@1550	94.8@1550	14.99@1550	PTOX EM EGR SPL
4045HFC92N	4045	91.0@2200	95.9@2200	21.52@2200	480@1550	107.5@1550	17.0@1550	PTOX EM EGR SPL
4045HFC92D	4045	74.0@2400	73.4@2400	17.97@2400	391@1550	86.6@1550	13.69@1550	PTOX EM EGR SPL
4045HT070D	4045	104.0@2200	105.4@2200	23.65@2200	534@1550	115.6@1550	18.28@1550	PTOX EM EGR SPL
4045HFC92E	4045	74.0@2400	73.4@2400	17.97@2400	391@1550	86.6@1550	13.69@1550	PTOX EM EGR SPL
4045HT063	4045	104.0@2250	104.8@2250	24.05@2250	534@1550	115.6@1550	18.28@1550	PTOX EM EGR SPL
4045HFG92B	4045	80.0@1800	96@1800	17.63@1800				PTOX EM EGR SPL
4045HFC92Q	4045	74.0@2400	74.4@2400	18.21@2400	391@1550	87.9@1550	13.9@1550	PTOX EM EGR SPL
4045HL490	4045	104.0@2100	107.4@2100	23.01@2100	534@1550	116.1@1550	16.36@1550	PTOX EM EGR SPL
4045HLV69	4045	86.0@2400	83.3@2400	20.39@2400	480@1550	105.4@1550	16.66@1550	PTOX EM EGR SPL
4045HFC92H	4045	63.0@2400	65.3@2400	15.99@2400	333@1550	75.1@1550	11.87@1550	PTOX EM EGR SPL
4045HFC92X	4045	63.0@2200	70.4@2200	15.8@2200	363@1550	83.5@1550	13.2@1550	PTOX EM EGR SPL
4045HFC92A	4045	91.0@2200	96.9@2200	21.74@2200	480@1550	104.3@1550	16.49@1550	PTOX EM EGR SPL
4045HFC92M	4045	102.0@2200	105.9@2200	23.76@2200	517@1550	117.2@1550	18.53@1550	PTOX EM EGR SPL
4045HFL92B	4045	74.0@2400	73.4@2400	17.97@2400	413@1550	91.3@1550	14.43@1550	PTOX EM EGR SPL
4045HFC92C	4045	86.0@2200	89.1@2200	19.99@2200	480@1550	103.7@1550	16.4@1550	PTOX EM EGR SPL
4045HFL92A	4045	86.0@2400	82.4@2400	20.17@2400	480@1550	105.2@1550	16.63@1550	PTOX EM EGR SPL
4045HFC92R	4045	74.0@2400	74.9@2400	18.34@2400	391@1550	87.9@1550	13.9@1550	PTOX EM EGR SPL
4045HFC92O	4045	86.0@2400	84.3@2400	20.64@2400	460@1550	102.2@1550	16.16@1550	PTOX EM EGR SPL
4045HT066	4045	77.0@2000	84.9@2000	17.32@2000	450@1500	101.2@1500	15.48@1500	PTOX EM EGR SPL
4045HFC92G	4045	74.0@2200	77.7@2200	17.44@2200	427@1550	94.1@1550	14.88@1550	PTOX EM EGR SPL
4045HLV70	4045	104.0@2200	105.4@2200	23.65@2200	534@1550	115.6@1550	18.28@1550	PTOX EM EGR SPL
4045HFC92K	4045	63.0@2200	66.7@2200	14.97@2200	363@1550	81.9@1550	12.95@1550	PTOX EM EGR SPL
4045HFC92W	4045	63.0@2200	69@2200	15.48@2200	363@1550	83.3@1550	13.17@1550	PTOX EM EGR SPL
4045HFC92J	4045	63.0@2200	66.7@2200	14.97@2200	363@1550	81.9@1550	12.95@1550	PTOX EM EGR SPL
4045HT070C	4045	104.0@2200	105.4@2200	23.65@2200	534@1550	115.6@1550	18.28@1550	PTOX EM EGR SPL
4045HT070B	4045	104.0@2200	105.4@2200	23.65@2200	534@1550	115.6@1550	18.28@1550	PTOX EM EGR SPL
4045HT073	4045	104.0@2250	104.8@2250	24.05@2250	534@1550	115.6@1550	18.28@1550	PTOX EM EGR SPL

DOC, CAC, TE

R/C Date: 8/27/2012

EQ#: U-R-004-0441

Attachment: Page 2 of 2

4045HP056	4045	104.0@2200	105.4@2200	23.65@2200	534@1550	115.6@1550	18.28@1550	PTOX EM EGR SPL	DOC, CAC, TC
4045HMC92B	4045	86.0@2200	91.8@2200	20.6@2200	480@1550	108@1550	17.07@1550	PTOX EM EGR SPL	DOC, CAC, TC
4045HFC92I	4045	63.0@2400	65.3@2400	15.99@2400	333@1550	75.1@1550	11.87@1550	PTOX EM EGR SPL	DOC, CAC, TC

California Environmental Protection Agency Air Resources Board	JOHN DEERE POWER SYSTEMS	EXECUTIVE ORDER U-R-004-0492 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2015	FJDXL04.5305	4.5, 6.8	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Electronic Control Module, Exhaust Gas Recirculation, Selective Catalytic Reduction-Urea, Direct Diesel Injection, Turbocharger, Charge Air Cooler, Oxidation Catalyst, Ammonia Oxidation Catalyst	Loaders, Tractor, Dozer, Pump, Compressor, Generator Set, Other Industrial Equipment

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
75 < kW < 130	Tier 4 Final	STD	0.19	0.40	N/A	5.0	0.02	N/A	N/A	N/A
		FEL	--	--	--	--	0.04	--	--	--
		CERT	0.03	0.25	--	0.1	0.03	--	--	--

BE IT FURTHER RESOLVED: That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 30 day of July 2014.

Annette Hebert, Chief
Emissions Compliance, Automotive Regulations and Science Division

7-10-14

EOH: U-R-004-0492

Attachment: Page 1 of 1

Engine Model Summary Form

Manufacturer: John Deere Power Systems
Engine category: Nonroad CI
EPA Engine Family: FJDXL04.5305
Mfr Family Name: 350HCB
Process Code: New Submission

1. Engine code	2. Engine Model	3. kW@RPM (SAE Gross)	4. Fuel Rate: mm/stroke@peak kW (for diesel only)	5. Fuel Rate: (kg/hr)@peak kW (for diesels only)	6. Torque (Nm) @RPM (SEA Gross)	7. Fuel Rate: mm/stroke@peak torque	8. Fuel Rate: (kW/hr)@peak torque	9. Emission Control Device Per SAE J1930
4045HPRNT11	4045	106.4@2400	99.6@2400	24.4@2400	577@1600	123.1@1600	20.1@1600	~~EGR DOC SCR EM EC TC CAC NH3OC~~ EGR, OC, SCR-4, ECM, TC, CAC, NH3OC, DDI

California Environmental Protection Agency **Air Resources Board**	JOHN DEERE POWER SYSTEMS	**EXECUTIVE ORDER U-R-004-0537** New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2017	HJDXL04.5315	4.5	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Electronic Control Module, Exhaust Gas Recirculation, Selective Catalytic Reduction-Urea, Electronic Direct Injection, Turbocharger, Charge Air Cooler, Oxidation Catalyst, Ammonia Oxidation Catalyst	Loaders, Tractor, Dozer, Pump, Compressor, Generator Set, Other Industrial Equipment

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
56 ≤ kW < 130	Tier 4 Final	OPTIONAL STD	0.19	0.40	N/A	5.0	0.02	N/A	N/A	N/A
		CERT	0.02	0.33	--	0.1	0.02	--	--	--

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has complied with the more stringent set of standards from the various power categories in conformance with Section 1039.230 (e) of the "California Exhaust Emission Standards and Test Procedures for New 2011 and Later Tier 4 Off-Road Compression Ignition Engines, Part I-D" adopted October 20, 2005 and last amended October 25, 2012.

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 3rd day of January 2017.

Annette Hebert, Chief
Emissions Compliance, Automotive Regulations and Science Division

EO#: U-R-004-0537

4/14/2017

R/C

Attachment: Page 1 of 1

Engine Model Summary Form

Manufacturer: John Deere Power Systems
Engine category: Nonroad CI
EPA Engine Family: HJDXL04.5315
Mfr Family Name: 350HCG
Process Code: Running Change

1. Engine code	2. Engine Model	3. kW@RPM (SAE Gross)	4. Fuel Rate: mm/stroke@peak kW (for diesel only)	5. Fuel Rate: (kg/hr)@peak kW (for diesels only)	6. Torque (Nm) @RPM (SEA Gross)	7. Fuel Rate: mm/stroke@peak torque	8. Fuel Rate: (kW/hr)@peak torque	9. Emission Control Device Per SAE J1930
4045HAC05A	4045	104@2200	100.9@2200	22.6@2200	540@1600	113.7@1600	18.5@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HAC05B	4045	86@2200	84.6@2200	19@2200	506@1600	105.8@1600	17.3@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04A	4045	104@2200	100.9@2200	22.6@2200	540@1600	113.7@1600	18.5@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04B	4045	100@2400	96.2@2400	23.5@2400	540@1600	114.2@1600	18.6@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04C	4045	93@2400	88.8@2400	21.7@2400	493@1600	103.1@1600	16.8@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04D	4045	93@2200	90.8@2200	20.4@2200	536@1600	112.7@1600	18.4@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04E	4045	86@2400	82.2@2400	20.1@2400	461@1600	96.8@1600	15.8@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04F	4045	86@2200	84.6@2200	19@2200	506@1600	105.8@1600	17.3@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04G	4045	74@2400	70.4@2400	17.2@2400	391@1600	84.2@1600	13.7@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04H	4045	74@2400	70.4@2400	17.2@2400	391@1600	84.2@1600	13.7@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04I	4045	74@2200	73.5@2200	16.5@2200	427@1600	89.3@1600	14.6@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04J	4045	74@2200	73.5@2200	16.5@2200	427@1600	89.3@1600	14.6@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04K	4045	63@2400	63.9@2400	15.6@2400	333@1600	72.2@1600	11.8@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04L	4045	63@2400	63.9@2400	15.6@2400	333@1600	72.2@1600	11.8@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04M	4045	63@2200	64.2@2200	14.4@2200	363@1600	68.4@1600	11.2@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFC04N	4045	63@2200	64.2@2200	14.4@2200	363@1600	68.4@1600	11.2@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFG04@	4045	110@2200	107.4@2200	24.7@2200	540@1600	113.8@1600	18.6@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFG04A	4045	99@1800	115.1@1800	21.1@1800				EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFG04B	4045	80@1800	92.6@1800	17@1800				EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFG04C	4045	67@1800	77.1@1800	14.1@1800				EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFG04D	4045	80@1500	106.7@1500	16.3@1500				EGR OC SCRC NH3OC DFI TC CAC ECM
4045HFG04E	4045	67@1500	90.8@1500	13.9@1500				EGR OC SCRC NH3OC DFI TC CAC ECM
4045HLV73	4045	99@2200	98.2@2200	22@2200	540@1600	113.2@1600	18.5@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
*4045HLV75	4045	94@2200	93.4@2200	21@2200	519@1600	107.9@1600	17.6@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
*4045HLV76	4045	86@2400	81.6@2400	19.9@2400	519@1600	107.9@1600	17.6@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
*4045HLV78	4045	94@2200	93.4@2200	21@2200	519@1600	107.9@1600	17.6@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HMC05A	4045	104@2200	102@2200	23@2200	540@1600	113@1600	18.5@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HMC05B	4045	86@2200	85@2200	19.2@2200	480@1600	101@1600	16.4@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
*4045HP078	4045	94@2200	93.4@2200	21@2200	519@1600	107.9@1600	17.6@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HPRNT14	4045	106@2400	99.6@2400	24.4@2400	577@1600	123.1@1600	20.1@1600	EGR OC SCRC NH3OC DFI TC CAC ECM
4045HT096	4045	94@2200	93.4@2200	21@2200	519@1600	107.5@1600	17.6@1600	EGR OC SCRC NH3OC DFI TC CAC ECM

* New ratings added for running change

California Environmental Protection Agency **Air Resources Board**	KOMATSU LIMITED	**EXECUTIVE ORDER U-R-005-0416** New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engine and emission control system produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2015	FKLXL11.0DDC	11.0	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Exhaust Gas Recirculation, Diesel Oxidation Catalyst, Periodic Trap Oxidizer, Engine Control Module, Selective Catalytic Reduction-Urea, and Ammonia Oxidation Catalyst	Loader, Dozer, Off-Road Truck

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
130 ≤ kW ≤ 560	Tier 4 Final	STD	0.19	0.40	N/A	3.5	0.02	N/A	N/A	N/A
		CERT	0.01	0.24	--	0.04	0.001	--	--	--

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 30 day of September 2014.

Annette Hebert, Chief
Emissions Compliance, Automotive Regulations and Science Division

Attachment 1 of 1

Engine Model Summary Template

U-R-005-0416

8-26-2014

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
FKLXL11.0DDC	5C01	SAA6D125E-7	333@2000	176	118	1237@1400	239	108	EM,TC,CAC,EGR,DFI,ECM, SCR-U, AMOX, PTOX, ~~OC~~ DOC
FKLXL11.0DDC	5C02	SAA6D125E-7	362@1900	201	125	1114@1400	217	98	EM,TC,CAC,EGR,DFI,ECM, SCR-U, AMOX, PTOX, OC
FKLXL11.0DDC	5C03	SAA6D125E-7	267@1900	152	94	938@1400	186	83	EM,TC,CAC,EGR,DFI,ECM, SCR-U, AMOX, PTOX, OC
FKLXL11.0DDC	5C04	SAA6D125E-7	274@2000	149	99	964@1450	187	88	EM,TC,CAC,EGR,DFI,ECM, SCR-U, AMOX, PTOX, OC
FKLXL11.0DDC	5C05	SAA6D125E-7	405@2000	216	139	1259@1400	244	111	EM,TC,CAC,EGR,DFI,ECM, SCR-U, AMOX, PTOX, OC

California Environmental Protection Agency Air Resources Board	FPT INDUSTRIAL S.p.A.	EXECUTIVE ORDER U-R-015-0293 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2015	FFPXL03.4FSD	3.4	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Electronic Direct Injection, Engine Control Module, Turbocharger, Charge Air Cooler, Exhaust Gas Recirculation, Diesel Oxidation Catalyst, Selective Catalytic Reduction - Urea, Ammonia Oxidation Catalyst	Loader, and Other Industrial Equipment

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
56 ≤ kW < 130	Tier 4 Final	STD	0.19	0.40	N/A	5.0	0.02	N/A	N/A	N/A
		CERT	0.004	0.33	--	0.05	0.02	--	--	--

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has complied with the more stringent set of standards from the various power categories in conformance with Section 1039.230 (e) of the "California Exhaust Emission Standards and Test Procedures for 2008 and Later Tier 4 Off-Road Compression-Ignition Engines, Part I-C" adopted October 20, 2005 and last amended October 25, 2012.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 20 day of August 2014.

Annette Hebert, Chief
Emissions Compliance, Automotive Regulations and Science Division

Engine Model Summary Template

U-R-015-0293 Attachment pg 1/2 8/7/2014

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
FFPXL03.4FSD	F5BFL414J*B	F5BFL414J*B	121 @ 2200	92	N/A	363 @ 1400	111	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5GFL414J*B	F5GFL414J*B	121 @ 2200	92	N/A	363 @ 1400	111	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5BFL414J*B	854F-E34TAN 4260/2200	121 @ 2200	92	N/A	363 @ 1400	111	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5BFL414J*B	C3.4B 4260/2200	121 @ 2200	92	N/A	363 @ 1400	111	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5BFL414H*B	F5BFL414H*B	84 @ 2200	63	N/A	262 @ 1400	78	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5GFL414H*B	F5GFL414H*B	84 @ 2200	63	N/A	262 @ 1400	78	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5BFL414H*B	854F-E34TAN 4270/2200	84 @ 2200	63	N/A	262 @ 1400	78	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5BFL414H*B	C3.4B 4270/2200	84 @ 2200	63	N/A	262 @ 1400	78	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5BFL414E*B	F5BFL414E*B	94 @ 2200	70	N/A	293 @ 1400	86	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5GFL414E*B	F5GFL414E*B	94 @ 2200	70	N/A	293 @ 1400	86	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5BFL414E*B	854F-E34TAN 4276/2200	94 @ 2200	70	N/A	293 @ 1400	86	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5BFL414E*B	C3.4B 4276/2200	94 @ 2200	70	N/A	293 @ 1400	86	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5BFL414A*B	F5BFL414A*B	101 @ 2200	75	N/A	319 @ 1400	95	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5GFL414A*B	F5GFL414A*B	101 @ 2200	75	N/A	319 @ 1400	95	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5BFL414A*B	854F-E34TAN 4266/2200	101 @ 2200	75	N/A	319 @ 1400	95	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5BFL414A*B	C3.4B 4266/2200	101 @ 2200	75	N/A	319 @ 1400	95	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5BFL414B*B	F5BFL414B*B	111 @ 2200	83	N/A	341 @ 1400	101	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5GFL414B*B	F5GFL414B*B	111 @ 2200	83	N/A	341 @ 1400	101	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5BFL414B*B	854F-E34TAN 4264/2200	111 @ 2200	83	N/A	341 @ 1400	101	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5BFL414B*B	C3.4B 4264/2200	111 @ 2200	83	N/A	341 @ 1400	101	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5BFL414F*B	F5BFL414F*B	88 @ 2500	62	N/A	274 @ 1400	84	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5GFL414F*B	F5GFL414F*B	88 @ 2500	62	N/A	274 @ 1400	84	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5BFL414F*B	854F-E34TAN 4282/2500	88 @ 2500	62	N/A	274 @ 1400	84	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5BFL414F*B	C3.4B 4282/2500	88 @ 2500	62	N/A	274 @ 1400	84	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5BFL414D*B	F5BFL414D*B	101 @ 2500	70	N/A	319 @ 1400	95	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5GFL414D*B	F5GFL414D*B	101 @ 2500	70	N/A	319 @ 1400	95	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.

Engine Model Summary Template

U-R-015-0293 Attachment #3 2/2 8/7/2014

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
FFPXL03.4FSD	F5BFL414D*B	854F-E34TAN 4274/2500	101 @ 2500	70	N/A	319 @ 1400	95	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5BFL414D*B	C3.4B 4274/2500	101 @ 2500	70	N/A	319 @ 1400	95	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5BFL414C*B	F5BFL414C*B	115 @ 2500	80	N/A	352 @ 1400	101	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5GFL414C*B	F5GFL414C*B	115 @ 2500	80	N/A	352 @ 1400	101	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5BFL414C*B	854F-E34TAN 4262/2500	115 @ 2500	80	N/A	352 @ 1400	101	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5BFL414C*B	C3.4B 4262/2500	115 @ 2500	80	N/A	352 @ 1400	101	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5GFL414J*B	854F-E34TAN 4260/2200	121 @ 2200	92	N/A	363 @ 1400	111	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5GFL414J*B	C3.4B 4260/2200	121 @ 2200	92	N/A	363 @ 1400	111	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5GFL414H*B	854F-E34TAN 4270/2200	84 @ 2200	63	N/A	262 @ 1400	78	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5GFL414H*B	C3.4B 4270/2200	84 @ 2200	63	N/A	262 @ 1400	78	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5GFL414E*B	854F-E34TAN 4276/2200	94 @ 2200	70	N/A	293 @ 1400	86	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5GFL414E*B	C3.4B 4276/2200	94 @ 2200	70	N/A	293 @ 1400	86	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5GFL414A*B	854F-E34TAN 4266/2200	101 @ 2200	75	N/A	319 @ 1400	95	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5GFL414A*B	C3.4B 4266/2200	101 @ 2200	75	N/A	319 @ 1400	95	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5GFL414B*B	854F-E34TAN 4264/2200	111 @ 2200	83	N/A	341 @ 1400	101	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5GFL414B*B	C3.4B 4264/2200	111 @ 2200	83	N/A	341 @ 1400	101	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5GFL414F*B	854F-E34TAN 4282/2500	88 @ 2500	62	N/A	274 @ 1400	84	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5GFL414F*B	C3.4B 4282/2500	88 @ 2500	62	N/A	274 @ 1400	84	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5GFL414D*B	854F-E34TAN 4274/2500	101 @ 2500	70	N/A	319 @ 1400	95	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5GFL414D*B	C3.4B 4274/2500	101 @ 2500	70	N/A	319 @ 1400	95	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5GFL414C*B	854F-E34TAN 4262/2500	115 @ 2500	80	N/A	352 @ 1400	101	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.
FFPXL03.4FSD	F5GFL414C*B	C3.4B 4262/2500	115 @ 2500	80	N/A	352 @ 1400	101	N/A	DDI ECM TC CAC DOC SCR-u AMOX EGR.

California Environmental Protection Agency Air Resources Board	FPT INDUSTRIAL S.p.A.	EXECUTIVE ORDER U-R-015-0347 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2017	HFPXL03.4CDC	3.4	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Engine Control Module, Exhaust Gas Recirculation, Diesel Oxidation Catalyst, Periodic Trap Oxidizer	Loader, Tractor, Dozer, and Other Industrial Equipment

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
37 ≤ kW < 56	Tier 4 Final	STD	N/A	N/A	4.7	5.0	0.03	N/A	N/A	N/A
		CERT	--	--	3.7	0.1	0.01	--	--	--

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 3 day of February 2017.

Annette Hebert, Chief
Emissions Compliance, Automotive Regulations and Science Division

U-R-015-0347

Attachment pg 1 of 1

1/20/2017

Engine Model Summary Template

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
HFPXL03.4CDC	F5DFL413A*E	F5DFL413A*E	74 @ 2300	58	N/A	236 @ 1500	72	N/A	DDI,ECM,TC,CAC,EGR, DOC,PTOX
HFPXL03.4CDC	F5HFL413A*E	F5HFL413A*E	74 @ 2300	58	N/A	236 @ 1500	72	N/A	DDI,ECM,TC,CAC,EGR, DOC,PTOX
HFPXL03.4CDC	F5HFL413B*E	F5HFL413B*E	74 @ 2300	57	N/A	229 @ 1500	68	N/A	DDI,ECM,TC,CAC,EGR, DOC,PTOX
HFPXL03.4CDC	F5DFL413B*E	F5DFL413B*E	74 @ 2300	57	N/A	229 @ 1500	68	N/A	DDI,ECM,TC,CAC,EGR, DOC,PTOX
HFPXL03.4CDC	F5HFL414A*E	F5HFL414A*E	74@ 2200	57	N/A	314 @ 1200	97	N/A	DDI,ECM,TC,CAC,EGR, DOC,PTOX
HFPXL03.4CDC	F5DFL414A*E	F5DFL414A*E	74@ 2200	57	N/A	314 @ 1200	97	N/A	DDI,ECM,TC,CAC,EGR, DOC,PTOX
HFPXL03.4CDC	F5HFL414A*E	854F-E34TA 4192/2200	74@ 2200	57	N/A	314 @ 1200	97	N/A	DDI,ECM,TC,CAC,EGR, DOC,PTOX
HFPXL03.4CDC	F5HFL414A*E	C3.4B 4192/2200	74@ 2200	57	N/A	314 @ 1200	97	N/A	DDI,ECM,TC,CAC,EGR, DOC,PTOX
HFPXL03.4CDC	F5DFL414A*E	854F-E34TA 4192/2200	74@ 2200	57	N/A	314 @ 1200	97	N/A	DDI,ECM,TC,CAC,EGR, DOC,PTOX
HFPXL03.4CDC	F5DFL414A*E	C3.4B 4192/2200	74@ 2200	57	N/A	314 @ 1200	97	N/A	DDI,ECM,TC,CAC,EGR, DOC,PTOX

California Environmental Protection Agency **Air Resources Board**	PERKINS ENGINES COMPANY LTD.	EXECUTIVE ORDER U-R-022-0191 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2014	EPKXL04.4MK1	4.4	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Electronic Control Module, Exhaust Gas Recirculation, Diesel Oxidation Catalyst, Continuous Trap Oxidizer	Cranes, Loaders, Tractor, Dozer, Pump, Compressor, Generator Set

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
56 ≤ kW < 130	Interim Tier 4 / ALT NOx	STD	0.19	3.4	N/A	5.0	0.02	N/A	N/A	N/A
		FEL	N/A	N/A	N/A	N/A	0.01	N/A	N/A	N/A
		CERT	0.01	2.6	--	0.1	0.003	--	--	--

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has complied with the more stringent set of standards from the various power categories in conformance with Section 1039.230 (e) of the "California Exhaust Emission Standards and Test Procedures for 2008 and Later Tier 4 Off-Road Compression-Ignition Engines, Part I-C" adopted October 20, 2005 and last amended October 25, 2012.

BE IT FURTHER RESOLVED: That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 18th day of December 2013.

Erik White, Chief
Mobile Source Operations Division

Attachment 1 of 2

Engine Model Summary Template

U-R-022-0191
12-11-'13

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
EPKXL04.4MK1	Cert Test 1	3584/2200	148@2200	111.6	54	413@1400	126.2	39	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	1	3584/2200	148@2200	111.6	54	413@1400	126.2	39	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	2	3638/2200	142@2200	108.9	53	413@1400	125.8	39	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	3	3636/2200	137@2200	105.4	51	413@1400	126.2	39	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	4	3632/2200	131@2200	101.7	49	391@1400	119.6	37	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	5	3640/2200	124@2200	96.8	47	391@1400	120.6	37	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	6	3644/2200	122@2200	95.2	46	369@1400	113.6	35	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	7	3648/2200	115@2200	91.5	44	369@1400	114	35	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	8	3634/2200	110@2200	84.8	41	332@1400	101.8	31	DDI TAA ECM DOC CTOX EGR EPR

Attachment 2 of 2

Engine Model Summary Template

U-R-022-0191
12-11-'13

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
EPKXL04.4MK1	9	3656/2200	100@2200	77.3	31	332@1400	101.8	31	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	10	3658/2200	94@2200	73.6	28	295@1400	89.9	28	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	11	3654/2200	88@2200	70	26	274@1400	83.8	26	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	12	3630/1950	121@1950	89.7	34	361@1400	110.7	34	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	13	3662/1800	95@1800	85.1	29	305@1350	93.4	29	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	Cert Test 14	3792/1800	109@1800	98.1	39	319@1800	98.1	39	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	14	3792/1800	109@1800	98.1	39	319@1800	98.1	39	DDI TAA ECM DOC CTOX EGR EPR
EPKXL04.4MK1	15	3660/2200	83@2200	65.0	31	256@1400	79.8	24	DDI TAA ECM DOC CTOX EGR EPR

TAA = TC + CAC

California Environmental Protection Agency Air Resources Board	PERKINS ENGINES COMPANY LTD	EXECUTIVE ORDER U-R-022-0206 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment under the flexibility program provisions. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	FLEXIBILITY PROGRAM ENGINE FAMILY NAME(s)
2016	EPKXL06.6BK1, EPKXL04.4MK1, EPKXL04.4ML1, DPKXL7.01BL1, BPKXL04.4NJ1, BPKXL04.4NL1, BPKXL04.4NM1, BPKXL04.4NM2, APKXL12.5TAG, APKXL15.2TA2, APKXL18.1TAG

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2423, subpart (d).

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

BE IT FURTHER RESOLVED: Engines certified under this Executive Order shall not be produced before January 1, 2016.

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 24th day of December 2015.

Annette Hebert, Chief
Emissions Compliance, Automotive Regulations and Science Division

California Environmental Protection Agency AIR RESOURCES BOARD	KUBOTA Corporation	EXECUTIVE ORDER U-R-025-0543 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2012	CKBXL02.4ECD	1.826, 2.434	Diesel	5000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Mechanical Direct Injection	Wheel Loader, Skid Steer Loader

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kW-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kW-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
19 ≤ kW < 37	Interim Tier 4	STD	N/A	N/A	7.5	5.5	0.30	20	15	50
		CERT	--	--	6.2	2.0	0.23	1	1	1

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 27th day of December 2011.

M. Tucker FOR AGM

Annette Hebert, Chief
Mobile Source Operations Division

Engine Model Summary Form

EO # U-R-025-0543

Attachment

2/23/2012

Manufacturer: **KUBOTA Corporation**
Engine category: **Nonroad CI**
EPA Engine Family: **CKBXL02.4ECD**
Mfr Family Name: **N/A**
Process Code: **Running Change**

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
4IRX3N	4IRX3N	48.9@2600	33.1	19.2	117.0@1600	36.0	12.9	EM, Mechanical DI
C1.8-DI-ET02	C1.8-DI-ET	30.6@2200	33.1	12.2	83.8@1400	35.8	8.4	EM
C1.8-DI-ET05	C1.8-DI-ET	33.3@2400	33.8	13.6	83.8@1400	35.7	8.4	EM
C2.4-DI-ET03	C2.4-DI-ET	41.8@2200	32.3	15.9	115.0@1400	36.0	11.3	EM
C2.4-DI-ET06	C2.4-DI-ET	45.7@2400	34.1	18.3	115.0@1400	35.9	11.2	EM
D1803-M-DI-ET01	D1803-M-DI-ET	37.4@2700	33.4	15.1	85.3@1600	35.4	9.5	EM
D1803-M-DI-ET02	D1803-M-DI-ET	30.6@2200	33.1	12.2	83.8@1400	35.8	8.4	EM
D1803-M-DI-ET03	D1803-M-DI-ET	36.1@2600	32.9	14.3	85.3@1600	35.4	9.5	EM
D1803-M-DI-ET04	D1803-M-DI-ET	34.7@2500	32.6	13.7	85.3@1600	35.5	9.5	EM
D1803-M-DI-ET05	D1803-M-DI-ET	33.3@2400	33.8	13.6	83.8@1400	35.7	8.4	EM
D1803-M-DI-ET06	D1803-M-DI-ET	31.9@2300	32.7	12.6	83.8@1400	35.9	8.4	EM
V2403-M-DI-ET01	V2403-M-DI-ET	48.9@2700	32.3	19.5	121.7@1500	38.0	12.7	EM
V2403-M-DI-ET02	V2403-M-DI-ET	48.9@2700	32.3	19.5	117.0@1600	36.0	12.9	EM
V2403-M-DI-ET03	V2403-M-DI-ET	41.8@2200	32.3	15.9	115.0@1400	36.0	11.3	EM
V2403-M-DI-ET04	V2403-M-DI-ET	48.9@2600	33.1	19.2	117.0@1600	36.0	12.9	EM
V2403-M-DI-ET05	V2403-M-DI-ET	47.6@2500	33.2	18.6	117.0@1600	36.4	13.0	EM
V2403-M-DI-ET06	V2403-M-DI-ET	45.7@2400	34.1	18.3	115.0@1400	35.9	11.2	EM
V2403-M-DI-ET07	V2403-M-DI-ET	43.9@2300	33.5	17.2	115.0@1400	36.0	11.3	EM

California Environmental Protection Agency Air Resources Board	KUBOTA Corporation	EXECUTIVE ORDER U-R-025-0653 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2015	FKBXL02.4GND	1.826, 2.435	Diesel	5000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Electronic Direct Injection, Exhaust Gas Recirculation, Electronic Control Module, Diesel Oxidation Catalyst, Periodic Trap Oxidizer	Loader, Tractor, Pump, Compressor and Other Industrial Equipment

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kW-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kW-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
19 ≤ kW < 37	Tier 4 Final	STD	N/A	N/A	4.7	5.5	0.03	N/A	N/A	N/A
		CERT	--	--	3.1	0.04	0.001	--	--	--

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 29 day of October 2014.

Annette Hebert, Chief
Emissions Compliance, Automotive Regulations and Science Division

EO# U-R-025-0653

Date: 2/27/2015

Engine Model Summary Form

Manufacturer: **KUBOTA Corporation**
Engine category: **Nonroad CI**
EPA Engine Family: **FKBXL02.4GND**
Mfr Family Name: **N/A**
Process Code: **Running Change**

Attachment page 1 of 1

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
*C2.4-CR-EF04	C2.4-CR-EF	45.1@2400	32.5	17.4	116.1@1500	38.5	12.9	EM, DFI, EGR, ECM, PTOX, DOC
*C2.4-CR-EF05	C2.4-CR-EF	41.2@2200	32.2	15.8	116.1@1500	38.5	12.9	EM, DFI, EGR, ECM, PTOX, DOC
D1803-CR-EF01	D1803-CR-EF	37.0@2700	33.0	14.9	84.2@1600	36.7	9.8	EM, DFI, EGR, ECM, PTOX, DOC
D1803-CR-EF02	D1803-CR-EF	35.7@2600	33.7	14.7	84.2@1600	36.7	9.8	EM, DFI, EGR, ECM, PTOX, DOC
D1803-CR-EF03	D1803-CR-EF	33.0@2400	32.7	13.2	84.2@1500	36.7	9.2	EM, DFI, EGR, ECM, PTOX, DOC
D1803-CR-EF04	D1803-CR-EF	30.4@2200	32.6	12.0	84.2@1500	36.7	9.2	EM, DFI, EGR, ECM, PTOX, DOC
D1803-CR-EF05	D1803-CR-EF	35.8@2700	32.0	14.5	84.2@1600	36.7	9.8	EM, DFI, EGR, ECM, PTOX, DOC
D1803-CR-EF06	D1803-CR-EF	32.5@2700	29.5	13.4	73.9@1600	31.7	8.5	EM, DFI, EGR, ECM, PTOX, DOC
V2403-CR-EF01	V2403-CR-EF	48.3@2700	31.8	19.2	126.1@1600	40.5	14.5	EM, DFI, EGR, ECM, PTOX, DOC
V2403-CR-EF02	V2403-CR-EF	48.3@2600	32.0	18.6	116.1@1600	38.1	13.6	EM, DFI, EGR, ECM, PTOX, DOC
V2403-CR-EF03	V2403-CR-EF	40.9@2600	27.7	16.1	98.5@1600	31.8	11.4	EM, DFI, EGR, ECM, PTOX, DOC
V2403-CR-EF04	V2403-CR-EF	45.1@2400	32.5	17.4	116.1@1500	38.5	12.9	EM, DFI, EGR, ECM, PTOX, DOC
V2403-CR-EF05	V2403-CR-EF	41.2@2200	32.2	15.8	116.1@1500	38.5	12.9	EM, DFI, EGR, ECM, PTOX, DOC
V2403-CR-EF06	V2403-CR-EF	41.2@2700	28.2	17.0	98.5@1600	31.8	11.4	EM, DFI, EGR, ECM, PTOX, DOC
V2403-CR-EF07	V2403-CR-EF	44.9@2600	31.0	18.0	106.2@1600	34.4	12.3	EM, DFI, EGR, ECM, PTOX, DOC
V2403-CR-EF08	V2403-CR-EF	48.3@2600	31.9	18.5	116.1@1600	38.1	13.6	EM, DFI, EGR, ECM, PTOX, DOC
*V2403-CR-EF09	V2403-CR-EF	46.4@2700	31.4	19.0	110.0@1600	35.7	12.8	EM, DFI, EGR, ECM, PTOX, DOC

* new codes

California Environmental Protection Agency **Air Resources Board**	**KUBOTA Corporation**	**EXECUTIVE ORDER U-R-025-0659** New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2015	FKBXL03.3EKD	3.331	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Electronic Direct Injection, Turbocharger, Exhaust Gas Recirculation, Electronic Control Module, Diesel Oxidation Catalyst, Periodic Trap Oxidizer	Loader, Tractor, Other Industrial Equipment

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kW-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kW-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
37 ≤ kW < 56	Tier 4 Final	STD	N/A	N/A	4.7	5.0	0.03	N/A	N/A	N/A
		CERT	--	--	3.1	0.04	0.002	--	--	--

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 31 day of October 2014.

Annette Hebert, Chief
Emissions Compliance, Automotive Regulations and Science Division

Engine Model Summary Form

EO# U-R-025-0659

Date: 3/3/2015

Manufacturer: **KUBOTA Corporation**
Engine category: **Nonroad CI**
EPA Engine Family: **FKBXL03.3EKD**
Mfr Family Name: **N/A**
Process Code: **Running Change**

Attachment page 1 of 1

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
C3.3B-CR-T-EF04	C3.3B-CR-T-EF	73.2@2400	53.0	28.4	192.5@1500	61.0	20.5	EM, DFI, TC, EGR, ECM, PTOX, DOC
* C3.3B-CR-T-EF05	C3.3B-CR-T-EF	73.2@2200	55.1	27.1	192.5@1500	61.0	20.5	EM, DFI, TC, EGR, ECM, PTOX, DOC
C3.3B-CR-T-EF06	C3.3B-CR-T-EF	65.7@2000	54.8	24.5	194.0@1400	60.8	19.0	EM, DFI, TC, EGR, ECM, PTOX, DOC
D3.3H-CR-T-EF02	D3.3H-CR-T-EF	73.2@2600	50.4	29.3	192.5@1500	61.0	20.5	EM, DFI, TC, EGR, ECM, PTOX, DOC
V3307-CR-T-EF01	V3307-CR-T-EF	73.2@2200	55.8	27.4	212.2@1500	66.1	22.2	EM, DFI, TC, EGR, ECM, PTOX, DOC
V3307-CR-T-EF02	V3307-CR-T-EF	73.2@2600	50.4	29.3	192.5@1500	61.0	20.5	EM, DFI, TC, EGR, ECM, PTOX, DOC
V3307-CR-T-EF03	V3307-CR-T-EF	72.5@2600	49.2	28.6	187.3@1600	57.2	20.5	EM, DFI, TC, EGR, ECM, PTOX, DOC
V3307-CR-T-EF04	V3307-CR-T-EF	73.2@2400	53.0	28.4	192.5@1500	61.0	20.5	EM, DFI, TC, EGR, ECM, PTOX, DOC
V3307-CR-T-EF05	V3307-CR-T-EF	73.2@2200	55.1	27.1	192.5@1500	61.0	20.5	EM, DFI, TC, EGR, ECM, PTOX, DOC
V3307-CR-T-EF06	V3307-CR-T-EF	65.7@2000	54.8	24.5	194.0@1400	60.8	19.0	EM, DFI, TC, EGR, ECM, PTOX, DOC
V3307-CR-T-EF07	V3307-CR-T-EF	65.0@2600	44.6	25.9	163.7@1600	51.1	18.3	EM, DFI, TC, EGR, ECM, PTOX, DOC
V3307-CR-T-EF08	V3307-CR-T-EF	66.1@2300	49.4	25.4	192.5@1500	61.0	20.5	EM, DFI, TC, EGR, ECM, PTOX, DOC
V3307-CR-T-EF09	V3307-CR-T-EF	72.3@2400	52.3	28.1	187.3@1600	57.2	20.5	EM, DFI, TC, EGR, ECM, PTOX, DOC
V3307-CR-T-EF10	V3307-CR-T-EF	73.0@2400	52.8	28.3	187.9@1400	58.2	18.2	EM, DFI, TC, EGR, ECM, PTOX, DOC
V3307-CR-T-EF11	V3307-CR-T-EF	65.4@2400	48.3	25.9	168.5@1400	53.0	16.6	EM, DFI, TC, EGR, ECM, PTOX, DOC
V3307-CR-T-EF12	V3307-CR-T-EF	73.2@2400	53.1	28.5	192.5@1400	60.0	18.8	EM, DFI, TC, EGR, ECM, PTOX, DOC
V3307-CR-T-EF13	V3307-CR-T-EF	65.4@2400	47.2	25.3	170.8@1400	52.7	16.5	EM, DFI, TC, EGR, ECM, PTOX, DOC

* new code

California Environmental Protection Agency Air Resources Board	KUBOTA Corporation	EXECUTIVE ORDER U-R-025-0697 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2016	GKBXL03.3EKD	3.331	Diesel	8000

SPECIAL FEATURES & EMISSION CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION
Electronic Direct Injection, Turbocharger, Exhaust Gas Recirculation, Electronic Control Module, Diesel Oxidation Catalyst, Periodic Trap Oxidizer	Loader, Tractor, Other Industrial Equipment

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kW-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kW-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
37 ≤ kW < 56	Tier 4 Final	STD	N/A	N/A	4.7	5.0	0.03	N/A	N/A	N/A
		CERT	--	--	3.1	0.04	0.002	--	--	--

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 14 day of September 2015.

Annette Hebert, Chief
Emissions Compliance, Automotive Regulations and Science Division

Engine Model Summary Form

EO # U-R-025-0697

Manufacturer: **KUBOTA Corporation**
Engine category: **Nonroad CI**
EPA Engine Family: **GKBXL03.3EKD**
Mfr Family Name: **N/A**
Process Code: **Running Change**

Attachment page 1 of 1

Date: 8/30/2016

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
C3.3B-CR-T-EF04	C3.3B-CR-T-EF	73.2@2400	53.0	28.4	192.5@1500	61.0	20.5	EM, DFI, TC, EGR, ECM, PTOX, DOC
C3.3B-CR-T-EF05	C3.3B-CR-T-EF	73.2@2200	55.1	27.1	192.5@1500	61.0	20.5	EM, DFI, TC, EGR, ECM, PTOX, DOC
C3.3B-CR-T-EF06	C3.3B-CR-T-EF	65.7@2000	54.8	24.5	194.0@1400	60.8	19.0	EM, DFI, TC, EGR, ECM, PTOX, DOC
D3.3H-CR-T-EF02	D3.3H-CR-T-EF	73.2@2600	50.4	29.3	192.5@1500	61.0	20.5	EM, DFI, TC, EGR, ECM, PTOX, DOC
* D3.3H-CR-T-EF05	D3.3H-CR-T-EF	73.2@2200	55.1	27.1	192.5@1500	61.0	20.5	EM, DFI, TC, EGR, ECM, PTOX, DOC
V3307-CR-T-EF01	V3307-CR-T-EF	73.2@2200	55.8	27.4	212.2@1500	66.1	22.2	EM, DFI, TC, EGR, ECM, PTOX, DOC
V3307-CR-T-EF02	V3307-CR-T-EF	73.2@2600	50.4	29.3	192.5@1500	61.0	20.5	EM, DFI, TC, EGR, ECM, PTOX, DOC
V3307-CR-T-EF03	V3307-CR-T-EF	72.5@2600	49.2	28.6	187.3@1600	57.2	20.5	EM, DFI, TC, EGR, ECM, PTOX, DOC
V3307-CR-T-EF04	V3307-CR-T-EF	73.2@2400	53.0	28.4	192.5@1500	61.0	20.5	EM, DFI, TC, EGR, ECM, PTOX, DOC
V3307-CR-T-EF05	V3307-CR-T-EF	73.2@2200	55.1	27.1	192.5@1500	61.0	20.5	EM, DFI, TC, EGR, ECM, PTOX, DOC
V3307-CR-T-EF06	V3307-CR-T-EF	65.7@2000	54.8	24.5	194.0@1400	60.8	19.0	EM, DFI, TC, EGR, ECM, PTOX, DOC
V3307-CR-T-EF07	V3307-CR-T-EF	65.0@2600	44.6	25.9	163.7@1600	51.1	18.3	EM, DFI, TC, EGR, ECM, PTOX, DOC
V3307-CR-T-EF08	V3307-CR-T-EF	66.1@2300	49.4	25.4	192.5@1500	61.0	20.5	EM, DFI, TC, EGR, ECM, PTOX, DOC
V3307-CR-T-EF09	V3307-CR-T-EF	72.3@2400	52.3	28.1	187.3@1600	57.2	20.5	EM, DFI, TC, EGR, ECM, PTOX, DOC
V3307-CR-T-EF10	V3307-CR-T-EF	73.0@2400	52.8	28.3	187.9@1400	58.2	18.2	EM, DFI, TC, EGR, ECM, PTOX, DOC
V3307-CR-T-EF11	V3307-CR-T-EF	65.4@2400	48.3	25.9	168.5@1400	53.0	16.6	EM, DFI, TC, EGR, ECM, PTOX, DOC
V3307-CR-T-EF12	V3307-CR-T-EF	73.2@2400	53.1	28.5	192.5@1400	60.0	18.8	EM, DFI, TC, EGR, ECM, PTOX, DOC
V3307-CR-T-EF13	V3307-CR-T-EF	65.4@2400	47.2	25.3	170.8@1400	52.7	16.5	EM, DFI, TC, EGR, ECM, PTOX, DOC

* new rating

MORROW-
MEADOWS
CORPORATION

ELECTRICAL/DATACOM CONSTRACTORS AND ENGINEERS
13000 Kirkham Way
Poway, California 92064
Telephone: (858) 974-3650
Fax: (858) 974-3660
License No. 230813 – C10

November 30, 2018

Nick Tasich
ARB Inc.
27000 Commercentre Drive
Lake Forest, CA 92630

Project: Carlsbad Energy Center 86184.5.8410

Subject: Equipment Maintenance – November

This letter serves to inform you that the following equipment is being inspected daily for any mechanical and maintenance issues.

1. None

The following equipment was removed this month.

1. (1) SKYTRAK (10054) Forklift Variable Reach 10000# 50' & Up , date of removal was November 22nd, 2018.

CLARIFICATIONS

All equipment is inspected and documented every morning by Morrow-Meadows prior to use. If maintenance or repairs are needed Morrow-Meadows will notify United Rentals.

Respectfully,

Doug Barnett
Sr. Project Manager
Morrow-Meadows Corporation
951-232-3269
dbarnett@morrow-meadows.com

GENERAL ENGINEERING CONTRACTOR

ORTIZ
ENTERPRISES, INC.

LICENSE NO. 467088

6 CUSHING, SUITE 200, IRVINE, CA 92618-4221
PHONE (949) 753-1414 FAX (949) 753-1477

November 30, 2018 Via e-mail

ARB Inc.
27000 Commercentre Drive
Lake Forest, CA 92630

ATTN: Nick Tasich

RE: Carlsbad Perimeter Road Project
Contract No. 14361187N-14

Subject: **Equipment Maintenance – November**

Dear Mr. Tasich,

This letter serves to inform you that the following equipment is being serviced and maintained on a daily basis.

1. 2 each Cat 450 Backhoe
2. 1 each Komatsu Loader
3. 2 each JD 210 Skiploader
4. 1 each Cat 623F Scraper
5. 1 each Cat 623G Scraper

If you have any questions or concerns, please do not hesitate to contact me at (949) 753-1414 ext. 104.

Sincerely,
Ortiz Enterprises, Inc.

John J. Britt

John J. Britt
Project Manager

C: Job 196/ARB

Bill Petty's Backhoe Service, Inc.
13203 Barlin Ave.
Downey, CA 90242
amysback@ca.rr.com
562-630-3162
Fax: 562-630-7341

December 4, 2018

ARB, Inc.
26000 Commercentre Dr.
Lake Forest, CA 92630

ATTN: Nick Tasich

RE: Carlsbad Berm Removal Project
Contract No. 14361187N-0103

Subject: Equipment Maintenance
Month: November 2018

Dear Mr. Tasich,

This letter serves to inform you that the following equipment on the job is being serviced and maintained, the operator does a daily walk around inspection each morning. The operator has the reports with him for the backhoe and you can see the reports at any time.

1. D & S Backhoe (Kent)

If you should have any questions, please let me know.

Respectfully submitted,

Patricia Petty
President

Primoris Services Corporation
ARB Inc.

December 6, 2018

NRG – Encina Power Station
4600 Carlsbad Blvd.
Carlsbad, Ca 92008

Attn: Ryan Goerl
Environmental Specialist/ Engineer

RE: Maintenance and Inspection of Equipment

Dear Mr. Goerl:

This letter confirms that ARB performs daily inspections and required maintenance at the regularly scheduled intervals for all on-site equipment. See attached *Equipment Log* for equipment currently on-site.

Respectfully,

Jack Richey

Jack Richey
ARB, Inc.
Project Manager

ARB

JOB NAME: ***Amended Carlsbad Energy Center***

JOB #: ***14361187N***

WEEK ENDING: ***12/1/18***

	EQPT MOVE ON DATE	EQPT MOVE OFF DATE	EQPT #	EIN NUMBER	EQUIPMENT DESCRIPTION
	2/10/17		265010	JA8G78	JLG Rough Terrain Forklift
	2/27/17		265017	HK3B47	Xtreme 12,000 lb Reach Forklift
	4/17/17			HX8D33	Ottowa TJ5000 Yard Goat
	6/27/17		265015	VC6G63	Xtreme Reachlift
	8/7/17		R10280	MJ7P67	GROVE 880 RT CRANE
	9/8/17			BY5V68	Caterpillar 430F Backhoe
	10/04/17			RA3E66	Xtreme Rough Terrain Forklift
	10/17/17		368009	WT4D33	Caterpillar 305.5E2 Excavator
	10/26/17			FM4M47	Caterpillar 303.5E Excavator
	10/26/17			KD3R57	Caterpillar Skidsteer 246D
	12/4/17		R10532	RL3H39	Cat Skip Loader
	02/13/18		RLF3869	AU8F89	JLG 860SJ Aerial Lift
	3/5/18			173839	Cummins Generator
	6/11/18			XG4L37	JLG Aerial Lift 860SJ
	6/21/18			BC9X46	Cat Skid Steer Loader 289D
	9/24/18		R11116	BV9L34	Genie Boom Z8060
	10/9/18		R11157	168057	150KW GENERATOR (UNITED 10345211)

ATTACHMENT D

BIO-6
PHASE II BIOLOGICAL RESOURCES
MONTHLY COMPLIANCE REPORT
NOVEMBER 2018

Biological Resources Monthly Compliance Report

Prepared for:
Carlsbad Energy Center LLC

Amended Carlsbad Energy Center Project (07-AFC-06C), November 2018 Reporting Period

December 2018

The business of sustainability

ERM

Signature Page

December 2018

Biological Resources Monthly Compliance Report

Steve Williams, P.G.
Partner

Melissa Fowler
Designated Biologist/Senior Biologist

Environmental Resources Management
1920 Main Street, Suite 300
Irvine, California 92614

CONTENTS

List of Figures

1. INTRODUCTION

This Monthly Compliance Report (MCR) summarizes biological resources monitoring activities and documentation conducted during Phase II activities at the Amended Carlsbad Energy Center Project (Amended CECP; see Figure 1) from 1 November through 30 November 2018, in accordance with the July 2015 Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP). Tank demolition/removal, site preparation and remediation activities for Phase I of the Amended CECP was completed in November 2015. Phase I berm removal commenced the first week of February 2016 and was completed in mid-May 2016. Former Tank Bays 1 and 2 are referenced as the "West Laydown Area" and former Tank bays 4-7 are designated as the "Construction Site". The California Energy Commission's (CEC) Compliance Project Manager (CPM) approved the start of construction (Phase II) on 6 June 2016. Phase II of the Amended CECP began in February 2017.

The following biological Conditions of Certification pertaining to monitoring activities covered by this MCR include, but are not limited to:

- BIO-5 Worker Environmental Awareness Program (WEAP);
- BIO-6 Biological Resources Mitigation Implementation and Monitoring Plan;
- BIO-7 Impact Avoidance Mitigation Features; and
- BIO-8 Mitigation Management to Avoid Harassment or Harm.

2. PHASE II MONITORING SUMMARY

This section summarizes biological monitoring activities conducted by ERM-West, Inc. (ERM) during the November 2018 reporting period. Construction mobilization and Phase I berm removal excavations between Tank Bays 4 and 5, 5 and 6, and 6 and 7 began the first week of February 2016 and were completed in mid-May 2016. Phase II Amended CECP mobilization and construction began in February 2017.

The frequency and duration of monitoring is dependent upon nesting and migratory seasons and the biological resources located within, as well as transiting through the work area. Biological monitoring will continue on a monthly basis (one visit per month) outside of the nesting season (February 1st through August 31st), as well as on-call monitoring, until the Designated Biologist determines that a change is necessary for the protection of sensitive biological resources or an increase in monitoring is warranted because of a lack of biological resources within the site.

All on-site staff receive WEAP training prior to start of work. A total of 24 additional staff members were trained in November 2018; a total of 1,939 workers have completed the training since the project began. Appendix A provides a summary table of the Project's WEAP attendance. The hardcopy sign-in training logs for November 2018 will be submitted under separate cover.

The WEAP training summary is provided in Appendix A. The Biological Resources Compliance Monitoring Logs are provided in Appendix B. A list of wildlife species observed during the monitoring event is included in Appendix C. There are no Wildlife Observation Forms (WOF) for this reporting period.

2.1 Amended CECP Phase II Activities Monitored

Amended CECP construction activities continued during November 2018. Biological monitoring event occurred on 9 November 2018. The Biological Resources Compliance Monitoring Logs are provided in Appendix B.

2.2 Nesting Birds

There are no active nests within the Amended CECP site. The Biological Resources Compliance Monitoring Logs are provided in Appendix B.

2.3 Special-Status Species

One special-status avian species, Cooper's hawk (*Accipiter cooperii*; California Department of Fish and Wildlife [CDFW] Watch List [WL]), was observed within the project vicinity during the biological monitoring events. A list of wildlife species observed during the monitoring event is included in Appendix C. California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) were not submitted because birds in transit (fly-overs) or foraging are not recorded according to CNDDB guidelines[1].

[1] California Department of Fish and Wildlife (CDFW). 2016. *Submitting Avian Detections to the CNDDB.* Available online at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=25731

2.4 Wildlife Displacement, Injuries, and Mortalities

2.4.1 Migratory Bird Treaty Act Protected Species

No injured or dead species protected by the Migratory Bird Treaty Act (MBTA) or California Department of Fish and Game Codes (3503, 3503.5) were observed at the project site. A list of avian species observed during the monitoring event is included in Appendix C.

2.4.2 Other Species

No injured or dead wildlife species were observed at the project site. A list of wildlife species observed during the monitoring event is included in Appendix C.

2.5 Hazardous Material Spills

No hazardous material spills have occurred at the project site during the biological monitoring event.

2.6 Trash

No litter was observed within the project site during the biological monitoring events.

2.7 Non-compliance Report

No formal non-compliance notifications or incident reports were issued.

FIGURE

Legend

- Demo and Construction Worker Access
- Amended CECP Site Boundary
- Encina Power Station Site

Source: Basemap Source or Aerial Source, Flight Date, and Resolution NAD 1983 UTM Zone 10N

Figure 1
Site Location Map
Carlsbad Energy Center Project
San Diego County, CA
October, 2016

Environmental Resources Management
www.erm.com
ERM

APPENDIX A WEAP TRAINING SUMMARY

WEAP Summary Table through 30 November 2018 Amended Carlsbad Energy Center Project	
Month Training Conducted	**Monthly Total of WEAP Attendees***
December 2014	21
January 2015	16
February 2015	7
March 2015	7
April 2015	1
May 2015	11
June 2015	5
July 2015	3
August 2015	30
September 2015	14
October 2015	3
November 2015	0
December 2015	3
January 2016	1
February 2016	49
March 2016	42
April 2016	5
May 2016	2
June 2016	0
July 2016	0
August 2016	5
September 2016	0
October 2016	0
November 2016	0
December 2016	0
January 2017	1
February 2017	114
March 2017	158
April 2017	85
May 2017	52
June 2017	30
July 2017	71
August 2017	77
September 2017	93
October 2017	104
November 2017	167
December 2017	136
January 2018	112
February 2018	89
March 2018	91

Month Training Conducted	Monthly Total of WEAP Attendees*
April 2018	70
May 2018	58
June 2018	13
July 2018	28
August 2018	47
September 2018	41
October 2018	53
November 2018	24
Total	**1,939**

*Attendance is based on training sign-in sheets

APPENDIX B BIOLOGICAL RESOURCES COMPLIANCE MONITORING LOG

AMENDED CARLSBAD ENERGY CENTER PROJECT
Phase II

BIOLOGICAL RESOURCES
COMPLIANCE MONITORING LOG

Report Number	1811-01	**Date of Report**	11/16/2018
Compliance Monitor	Megan Gleason (Biological Monitor, ERM)		
Site Location	ACECP site and access roads	**Construction Activity**	**Construction Site**: NRG construction activity. **West Laydown Area**: Construction activity.
Compliance Level	Acceptable	**Weather**	Temperature: Start 58˚F End 83˚F Wind: 7-13 mph; Cloud cover: 0%; Precip: 0%

Observation Notes: Biological Monitor, Megan Gleason (ERM), conducted the following compliance monitoring at the ACECP site on November 9, 2018 from 06:45 to 12:45:

- Biological monitoring at the Construction Site and West Laydown Area locations.
- All activities were in compliance with applicable mitigation measures.

The following were observed and discussed in detail:

Special-Status Species

- A Cooper's hawk (*Accipiter cooperii*; California Department of Fish and Wildlife [CDFW] Watch List [WL]) was observed within the project.
- No additional special-status species were observed during the monitoring event.

Construction Site Activity

- NRG construction activities continue (**Photo 1**).
- Road paving continues within the Construction Site. No biological constraints were identified (**Photo 2**).
- Construction continues on CTU 10 and the remaining tanks are being cleaned and prepared for operation (**Photo 3**).
- The bio-swale was surveyed, and no biological constraints were observed. **(Photo 4).**
- The Canon Substation was surveyed, and no biological constraints were identified (**Photo 5**)**.**
- The Pump Station and new administration building were surveyed, and no biological constraints were identified (**Photo 6**).
- Staged equipment has been moved from the Construction Site to the parking lot (**Photo 7**).

West Laydown Area Activity

- The only current construction activities within the West Laydown Area is the stockpile (**Photo 8**).
- The existing drainage and stockpile were surveyed for biological constraints. None were identified (**Photo 9**).

Wildlife Species Observed:

American bushtit (*Psaltriparus minimus*), American crow (*Corvus brachyrhynchos*), American goldfinch (*Spinus tristis*), Anna's hummingbird (*Calypte anna*), black-chinned hummingbird (*Archilochus alexandri*), black phoebe (*Sayornis nigricans*), Cooper's hawk, house finch (*Haemorhous mexicanus*), lesser goldfinch (*Spinus psaltria*), Say's phoebe (*Sayornis saya*), song sparrow (*Melospiza melodia*), western fence lizard (*Sceloporus occidentalis*), and white-crowned sparrow (*Zonotrichia leucophrys*).

Photo 1: NRG construction activities continue. *Photo taken 11/9/18, facing north.*

Photo 2: Roads within the Construction Site are being paved. *Photo taken 11/9/18, facing east.*

Photo 3. CTU 10 construction continues. *Photo taken 11/9/18, facing northeast.*

Photo 4. The bio-swale was surveyed for biological constraints. None were identified. *Photo taken 11/9/18, facing northwest.*

Photo 5. The Canon Substation was surveyed for nests and nesting behaviors. None were observed. *Photo taken 11/9/18, facing south.*

Photo 6. No biological constraints were observed within the Pump Station. *Photo taken 10/11/18, facing southwest.*

Photo 7. Staged equipment has been relocated from the Construction Site to the parking lot. *Photo taken 11/9/18, facing north.*

Photo 8. The stockpile is still being managed within the West Laydown Area. *Photo taken 11/9/18, facing south.*

Photo 9. The existing drainage within the West Laydown Area was surveyed for biological constraints. None were identified. *Photo taken 10/11/18, facing east.*

APPENDIX C OBSERVED WILDLIFE SPECIES LIST

Observed Wildlife Species List November 2018 Amended Carlsbad Energy Center Project		
Common Name	**Scientific Name**	**Status Federal/State/Other***
Birds		
American bushtit	*Psaltriparus minimus*	--/--/--
American crow	*Corvus brachyrhynchos*	--/--/--
American goldfinch	*Spinus tristis*	--/--/--
Anna's hummingbird	*Calypte anna*	--/--/--
Black-chinned hummingbird	*Archilochus alexandri*	--/--/--
Black phoebe	*Sayornis nigricans*	--/--/--
Cooper's hawk	*Accipiter cooperii*	--/WL/--
House finch	*Haemorhous mexicanus*	--/--/--
Lesser goldfinch	*Spinus psaltria*	--/--/--
Say's phoebe	*Sayornis saya*	--/--/--
Song sparrow	*Melospiza melodia*	--/--/--
White-crowned sparrow	*Zonotrichia leucophrys*	--/--/--
Reptiles		
Western fence lizard	*Sceloporus occidentalis*	--/--/--

Source:
California Department of Fish and Wildlife (CDFW). 2018. California Natural Diversity Database (CNDDB). *Special Animals List.* April**.**

Status Codes:
If status codes are not provided, it indicates that the observed species is not a special-status species.
Federal:
FE = Federally listed Endangered: species in danger of extinction throughout a significant portion of its range
FT = Federally listed Threatened: species likely to become endangered within the foreseeable future
BCC = Birds of Conservation Concern
State:
SE = State listed as Endangered
ST = State listed as Threatened
FP = Fully Protected
CSC = California Species of Special Concern Species of concern to California Department of Fish and Wildlife (CDFW) because of declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction.
S = Sensitive
WL = Watch List
***Other:**
Bureau of Land Management (BLM): Sensitive (S)
California Department of Forestry and Fire Protection (CDF) classifies "sensitive species" as those species that warrant special protection during timber operations.
U.S. Forest Service (USFS): Sensitive (S)

ATTACHMENT E

CUL-5 AND PAL-5
CERTIFICATION OF COMPLETION,
WORKER ENVIORNMENTAL AWARENESS PROGRAM,
NOVEMBER 2018

WEAP Summary Table through September 2017 Amended Carlsbad Energy Center Project	
Month Training Conducted	**Monthly Total of WEAP Attendees***
December 2014	21
January 2015	16
February 2015	7
March 2015	7
April 2015	1
May 2015	11
June 2015	5
July 2015	3
August 2015	30
September 2015	14
October 2015	3
November 2015	0
December 2015	3
January 2016	1
February 2016	49
March 2016	42
April 2016	5
May 2016	2
June 2016	0
July 2016	0
August 2016	5
September 2016	0
October 2016	0
November 2016	0
December 2016	0
January 2017	1
February 2017	114
March 2017	158
April 2017	85
May 2017	52
June 2017	30
July 2017	71
August 2017	77
September	93
Total	**906**

*Attendance is based on training sign-in sheets

Continued
WEAP Summary Table through November 2018
Amended Carlsbad Energy Center Project

Month Training Conducted	Monthly Total of WEAP Attendees*
October 2017	104
November 2017	167
December 2017	136
January 2018	112
February 2018	89
March 2018	91
April 2018	70
May 2018	58
June 2018	13
July 2018	28
August 2018	47
September 2018	41
October 2018	53
November 2018	24
Total	**1,939**

*Attendance is based on training sign-in sheets

Certification of Completion
Worker Environmental Awareness Program
Carlsbad Energy Center Project (07-AFC-6)

This is to certify these individuals have completed a mandatory California Energy Commission-approved Worker Environmental Awareness Program (WEAP). The WEAP includes pertinent information on cultural, paleontological, and biological resources for all personnel (that is, construction supervisors, crews, and plant operators) working on site or at related facilities. By signing below, the participant indicates that he/she understands and shall abide by the guidelines set forth in the program materials. Include this completed form in the Monthly Compliance Report.

No.	Employee Name	Title/Company	Signature
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
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16.			
17.			
18.			
19.			
20.			
21.			
22.			
23.			
24.			
25.			

Signed forms are provided under separate cover letter.

Cultural Trainer: _____ Signature:_____ Date: ___/___/____
PaleoTrainer: _____ Signature:_____ Date: ___/___/____
Biological Trainer: _____ ___Signature:_____ Date:___/___/_____

ATTACHMENT F

CUL-6/PAL-6
PALEONTOLOGICAL RESOURCE MONITORING
NOVEMBER 2018

Carlsbad Energy Center LLC provided notice to the California Energy Commission on November 1, 2018 that all ground disturbance activities were completed in October 2018. Cultural and Paleontological Resource Monitoring is completed for the construction phase of work for the CECP.

ATTACHMENT G

COMPLIANCE-6
SUMMARY TABLE OF NOISE HOTLINE CALLS
NOVEMBER 2018

Carlsbad Energy Center
Noise Hotline Calls
November 2014 Through November 2018

Date	Time	Log Number	Caller	Issue	Returned Call / Resolution	Corrective Action Completion Date
8/7/2015	Unk	080715-1	Michael Kline	Noise related to the startup of existing Encina Power Station steam boiler units (NOT associated with CECP)	Caller was contacted and the noise issue was discussed. Noise was related to early morning startup of existing Encina steam boiler units.	8/11/2015
8/23/2015	6:17 PM	NA	Auto-dialer	Political advertisement		
8/29/2015	2:47 PM	NA	Auto-dialer	Political advertisement		
9/14/2015	7:55 PM	NA	Auto-dialer	Political advertisement		
11/19/2014	9:49AM	111914-1	Susan Bloom	Questions concerning noise, when it would occur, and if noise will occur over weekend.	Caller was more interested in the desal plant - where does the water go when plant is completed. Informed her demolition work will be only during the week. Issue resolved.	11/21/2014
11/21/2014	1:49 PM	112114-1	Jan McAllister	Question concerning start date.	Informed caller that demolition work would start Mid-December. Issue resolved.	11/21/2014
12/2/2015	4:48 PM	NA	Wrong Number	Misc Meeting Conversation	NA	
1/5/2006	2:53 PM	120516-1	Ms. Nockels	Inquiry about project. Not a complaint	Informed caller. Caller satisfied.	1/5/2016
1/6/2016	11:28 AM	NA	Blank	None		
1/8/2016	9:25 PM	010816-1	Ms. Russo	Inquiry about project. Not a complaint	Informed caller. Caller satisfied.	1/9/2016
3/15/2016	12:40 PM	NA	Ms. Shalabha, Student and Unv. Of Waterloo, CA	Inquiry concerning desalination plant for school project.	Provided available information. No return call since.	NA
5/20/2016	8:23 AM	NA	Anna Tkavladze (212 954 1519)	Inquiry about project. Not a complaint	Called back left message, no response. 5/24/16 and 6/1/16	6/1/2016
6/2/2016	1:10 PM	NA	Laura (Company Oberan) (760-607-5179)	Inquire about traffic control notice - Not ACECP related.	Informed caller of project, no traffic impact, provided City of Carlsbad contact.	6/2/2016
6/9/2016	1::34 PM	NA	Elizabeth Banks	Inquired about construction north of the lagoon.	Informed called of the City's sewer lift station project and provided contact information for City of Carlsbad.	6/9/2016
8/9/2016	3:17 PM	NA	None	Blank message	NA	
9/15/2016	12:57 PM	NA	Jeanie Kennedy	Auto-dialer message for "forward packaging"	NA	
12/13/2016	1:09 PM	NA	Andrea Williams	Questions about plant and power lines. No complaint	Called back left message at 1:27 PM. Caller called back later in the day with questions about power lines. Directed caller to SDG&E.	1/13/2016
2/23/2017	9:12 AM	NA	Terry Fox	Inquiry about Encina plant demolition.	Called back and explained decommission the plant the year following shutdown and anticipate demo in 2020 that could extend into 2021.	2/25/2017
3/24/2017	3:01 PM	NA	Sally Katich	Inquiry about concrete pour notice.	Called back and explained the pour notification. Informed called about the project. No issue.	3/24/2017
4/10/2017	4:10 PM	NA	Nina Eaton	Inquiry about concrete pour notice.	Caller requested information concerning how to sign up for CEC Serve List, and realized she is already signed up. Provided caller with information about pours.	4/11/2017
4/17/2017	7:35 AM	NA	Jennifer Wilson (954-730-8775 and 786-339-5147)	Inquiry. No specific question.	Called left Message. No response.	4/18/2017
6/13/2017	10:51 AM	NA	None	Blank message	NA	
7/25/2017	11:35 AM	NA	Gerald Johannsen (smileyjoh@hotmail.com)	Mr. Johannsen observed several "belly dump" trucks driving through his neighborhood.	CECP investigated the complaint the same day and found that a construction project located at Carlsbad Blvd and Oak Ave. was using belly dump trucks. The project is a hotel development by DKN Hotels 714-427-4320; (by email) info@dknhotels.com. We have not used belly dump trucks for the CECP. The issued was not CECP related. CECP contacted Mr. Johannsen via E-mail 7/25/17.	7/25/2017
11/21/2017	4:21 PM	112117-1	Jeffrey Simon	Vibration between 1:30 AM and 2:30AM. Vibration noted for 30 second period and repeated a few times during the 1:30 to 2:30AM time period.	Contacted caller on 11-21-17 at 7:45pm and again on 11-22-17 at 10:15am. Discussed Encina plant operations and possible noise sources. Caller agreed that it does not appear to be related to CECP construction or Encina plant operations. Caller agreed that it could be other sources (aircraft, train tracks, etc.)	11/21/2017
11/22/2017	10:08 PM	NA	Sue Lando	Resident contacted the City of Carlsbad Sewer Lift Station Project inquiring about possible sources of vibration. The City forwarded the call to our attention. Vibration felt in her residence early in the morning (5am to 6am).	ACECP did not have construction activities occurring during the time period the caller experienced the vibration. We investigated the Encina Power Station and could not correlate an exact cause that would match a source or time period with the callers concern. We investigated the local area and found the only discernible vibration near the residence location was from truck traffic on the I-5 freeway. Caller was contacted on 11/27/17. Caller was satisfied with explanation of ACECP activities.	11/27/2017

Carlsbad Energy Center
Noise Hotline Calls
November 2014 Through November 2018

Date	Time	Log Number	Caller	Issue	Returned Call / Resolution	Corrective Action Completion Date
11/29/2017	10:30 AM	NA	Dan Hammer	Local resident call ACECP onsite environmental contact directly by cell phone. Caller was inquiring about the Encina Power Station and how much it has been operating and how much longer it will operate before being decommissioned. Caller also requested a site tour.	Call was not concerning construction. Informed the caller of Encina's operational status and tentative decommissioning and demolition schedule. Site tours are not provided.	11/29/2017
12/27/2017	3:37 AM	NA	Hang up tone.	NA	NA	NA
1/3/2018	4:37 PM	NA	Fax Machine	NA	NA	NA
1/12/2018	8:25 AM	NA	Fax Machine	NA	NA	NA
1/12/2018	9:45 AM	NA	Fax Machine	NA	NA	NA
2/1/2018	12:43 AM	010218-1	Ms. Cathy Fredenburg, Sunny Hill Dr., Capri Tract, 1 mile north east of the site. (760) 994-0903	Noted noise from the power plant area (Encina and ACECP). Was not sure if this was Encina or ACECP related. Noise was heard over the TV in their house.	ACECP did not have construction activities occurring the night shift. Contractors demobilized and were off site by 6:30 PM on 1-31-18. We investigated the Encina Power Station and was informed that the plant cycled one unit in the evening between 10PM and midnight. The cycling would include venting steam and blowing down as the unit returns to service. Normal cycling.	2/1/2018
2/2/2018	1:18 PM	NA	Fax Machine	NA	NA	NA
2/2/2018	4:22 PM	NA	Fax Machine	NA	NA	NA
2/3/2018	4:08 PM	NA	Blank	NA	NA	NA
2/6/2018	3:31 PM	NA	Blank	NA	NA	NA
2/7/2018	5:42 PM	NA	Fax Machine	NA	NA	NA
2/8/2018	7:48 AM	NA	Blank	NA	NA	NA
2/9/2018	5:05 PM	NA	Advertisement	NA	NA	NA
2/9/2018	5:54 PM	NA	Fax Machine	NA	NA	NA
2/9/2018	11:26 AM	NA	Fax Machine	NA	NA	NA
2/18/2018	7:53 AM	NA	Advertisement	NA	NA	NA
2/18/2018	12:18 PM	NA	Fax Machine	NA	NA	NA
2/18/2018	1:24 PM	NA	Fax Machine	NA	NA	NA
2/20/2018	7:41 AM	NA	Blank	NA	NA	NA
2/21/2018	1:38 PM	NA	Blank	NA	NA	NA
2/26/2018	1:25 PM	NA	Fax Machine	NA	NA	NA
2/27/2018	12:35 PM	NA	Fax Machine	NA	NA	NA
3/31/2018	Monthly	NA	11 Fax Machine calls	NA	NA	NA
3/31/2018	Monthly	NA	6 auto dialer calls	NA	NA	NA
4/20/2018	4:04 PM	NA	Jeff Glassauer, (925)-464-3164. 4471 Coastline, Carlsbad, CA. New home.	Inquired about CECP stack heights and demolition of Encina Power Station.	Contacted Saturday (4/21/18) 10:30am. No concerns about CECP. Glad stacks are lower than Encina and glad Encina will be demolished.	NA
4/30/2018	Monthly	NA	16 auto dialer calls	NA	NA	NA
5/31/2018	Monthly	NA	4 Fax Machine Calls	NA	NA	NA
5/31/2018	Monthly	NA	1 Auto dialer call	NA	NA	NA
6/25/2018	5:04 PM	062518-1	Kerry Siekmann (760) 438-5611, 5239 El Arbol Dr. Carlsbad CA 92008	Called to inquire about an odd noise coming from the power plant area. Also inquired about Encina demolition schedule.	Sound was identified as gas sampling from the CECP construction site associated with commissioning activity. Activity occurred during approved work hours of 7AM to 6PM. Informed caller that sound may reoccur during commissioning of the following 2 units. Caller satisfied. No additional action needed.	
6/30/2018	Monthly	NA	5 Fax Machine Calls	NA	NA	NA
6/30/2018	Monthly	NA	1 Auto dialer call	NA	NA	NA
7/31/2018	Monthly	NA	9 Fax and 3 Auto Dialer calls	NA	NA	NA
8/15/2018	7:37 PM	081518-1	Dove Library	Librarian called on behalf of a local resident to inquire about strange noise from the power plant area.	Incident was investigated and found no construction or commissioning work occurring after 6PM on 8/15/18. Returned call to library. Caller was satisfied. No additional action needed.	NA
8/31/2019	Monthly	NA	33 Fax and 11 Auto Dialer calls	NA	NA	NA
9/8/2018	6:36 PM	090818-1	Kerry Siekmann (760) 438-5611, 5239 El Arbol Dr. Carlsbad CA 92008	Caller heard a heard a loud boom and saw a flash of light come from the Encina power plant/Carlsbad Energy Center Project area and wanted to know if they should be concerned.	Called Ms. Siekmann and explained the event at the Encina Power Station. She was satisfied with the explanation. No further action required.	9/8/2018
9/25/2018	10:14 AM	092418-1	Linda Wheeler	Inquired about stack lighting.	Stack lighting was modified with switches. Caller was satisfied with response. No further action	11/15/2018
9//30/18	Monthly	NA	14 Fax or other Auto Dialer calls	NA	NA	NA

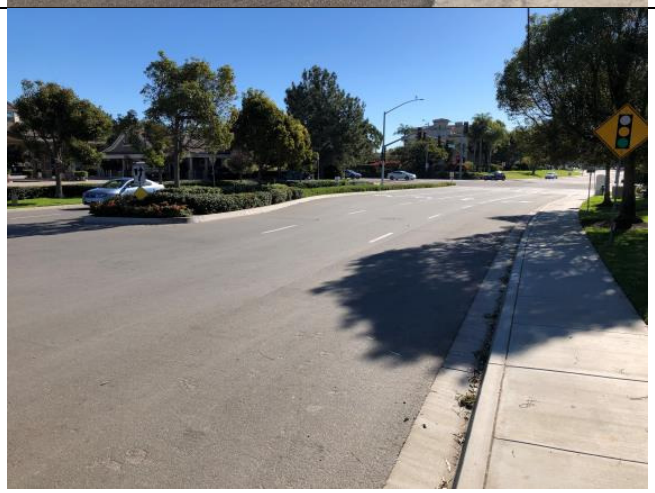
Carlsbad Energy Center
Noise Hotline Calls
November 2014 Through November 2018

Date	Time	Log Number	Caller	Issue	Returned Call / Resolution	Corrective Action Completion Date
10/23/2018, and 10/31/2018	9:26 AM	NA	Robert Ziss, rziss@msn.com	Inquired via e-mail directly to the CEC about plant status, air and noise monitoring and potential impact on the Terramar subdivision during Santa Ana wind conditions	The CEC responded directly to Mr. Ziss on October 29 via e-mail, and on November 20, 2018 by written response. All inquires were addressed. No further action at this time.	11/20/2018
10/31/2018	Monthly	NA	13 Fax or other Auto Dialer calls	NA	NA	NA
11/7/2018	11:30 AM	NA	Suzie Concors (760) 815-7102. Lives north of Agua Hedionda Lagoon.	Inquired via NRG e-mail system about power lines and lighting.	Power lines were determined to be distribution lines not associated with CECP (offsite residential power poles). The lighting is being evaluated for potential modifications to reduce the lighting profile from CECP. Modifications are estimated to be completed in January 2018. The lighting issue also includes lights associated with the City's sewer lift station. The City has been contacted and regarding the lighting issue. We will follow up with the City in January.	ETA January 2018
11/30/2018	Monthly	NA	No Calls Were Received in November	NA	NA	NA
12/2/2018	8:32 AM	NA	Inquiry concerning booming noise.	CECP investigated and determined the noise was from Camp Pendleton Military Base. Not related to CECP operation. Carlsbad Police Department also responded to calls concerning the booming noise. Verified that source is the military base.	Returned call at 8:50 AM. No further action.	NA

ATTACHMENT H

TRANS-5
ROADWAY INSPECTION
NOVEMBER 2018

Roadway Inspection November 2018

Location	Road Condition	Comments	Photos
Cannon Rd West Bound	Good.	No issues.	
Avenida Encinas North Bound	Good	No Issues.	
Avenida Encinas South Bound Lanes	Good.	No Issue.	

Location	Road Condition	Comments	Photos
Cannon Road Intersection with Avenida Encinas	Good	No Issues.	
Cannon Road West Bound West of Rail Crossing	Good.	No Issues.	
Cannon Road East Bound, West of Rail Crossing	Good	No Issues.	

Location	Road Condition	Comments	Photos
Cannon Road East Bound, East of Rail Crossing	Good	No Issues	

ATTACHMENT I

TRANS-6
TRANSPORTATION PERMITS
NOVEMBER 2018

No new transportation permits were obtained or used during November 2018.

ATTACHMENT J
TRANS-8
TRAFFIC ENCROACHMENT PERMITS
NOVEMBER 2018

No traffic encroachment permits were issued to CECP or CPC in November 2018.

ATTACHMENT K

SOIL&WATER-2
CONSTRUCTION WATER USAGE SUMMARY

SOIL&WATER-9
WASTEWATER SUMMARY

SOIL&WATER-2
Amended Carlsbad Energy Center Project
07-AFC-06C

Water use Summary November 2018.

Phase II Construction Monthly
Potable Water Used*: 110,096 gallons
Reclaim Water Used**: 2,745,558 gallons

Phase II Construction Total Water Use
Potable Water Used: 6,575,340 gallons
Reclaim Water Used: 12,241,371 gallons

Phase I Demolition (Completed August 2016)
Potable Water Used: 612,700 gallons
Reclaim Water Used: 0 gallons

Cumulative Water Use Phase I and II
Potable Water Used: 7,188,040 gallons
Reclaim Water Used: 12,241,371 gallons

*Potable use includes sanitary, hydrotesting, landscape irrigation (irrigation switched over to reclaimed water in August 2018), and applications not approved for reclaim water use (worker contact applications).

**Reclaim use includes dust control, compaction, and landscaping.

SOIL&WATER-9
Amended Carlsbad Energy Center Project
07-AFC-06C

Wastewater Generation and Disposal Summary
Construction Phase

ACECP disposed of 3,650 gallons of non-hazardous waste water during November 2018. The non-hazardous waste water was disposed of at an off-site disposal facility. Disposal manifest is attached.

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number: [illegible]
2. Page 1 of 1
3. Emergency Response Phone: [illegible]
4. Waste Tracking Number: [illegible]

5. Generator's Name and Mailing Address:
[illegible] LLC
4020 Carlsbad Blvd.
Carlsbad CA [illegible]

Generator's Phone: 760 [illegible]

Generator's Site Address (if different than mailing address):

6. Transporter 1 Company Name: American Integrated Services, Inc.
U.S. EPA ID Number: [illegible]

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address:
[illegible], Inc.
1630 W. 17th Street
Long Beach CA 90813

Facility's Phone: 562 432-5445
U.S. EPA ID Number: [illegible]

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1. Non-Hazardous Waste, Liquid ([illegible])	001	TT	[illegible]	G	
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information
[illegible] PPE when handling waste. Weights and volumes are approximate.
9.1) Profile # [illegible] Job #[illegible]

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[illegible]	11	[illegible]	[illegible]

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

	Printed/Typed Name	Signature	Month	Day	Year
Transporter 1	[illegible]	[illegible]	11	06	[illegible]
Transporter 2					

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name Signature Month Day Year

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

169-BLC-O 5 11977 (Rev. 9/09)

GENERATOR'S/SHIPPER'S INITIAL COPY

ATTACHMENT L

GEN-2 and TSE-1
MASTER DRAWING LIST UPDATE
NOVEMBER 2018

CARLSBAD POWER CONSTRUCTORS

BURNS MCDONNELL | PSC

CPC

GEN-2: Master Drawing/Specification List and Schedule

Carlsbad Energy Center, LLC

Carlsbad Energy Center

Project No: 86184

Item No.	Drawing Number	Drawing Title	Drawing Schedule Initial	Final	CCR	Major Structure/Equipment
	Architectural:					
	Administration/Control Building:					
	MB-1 Admin Bldg Structural Details	Administration Bldg - Structural Details MB-1	05/01/2017	6/13/2017		20
	MB-2 Admin Bldg Plan View	Administration Bldg - Structural Plan View MB-2	05/01/2017	5/22/2017		20
	MB-3 Admin Bldg Structural Elevations	Administration Bldg - Structural Elevations MB-3	05/01/2017	5/22/2017		20
	MB-4 Admin Bldg Structural Elevations	Administration Bldg - Structural Elevations MB-4	05/01/2017	5/22/2017		20
	170573-0	Administration Bldg - Sheeting Plan & Details	05/22/2017	6/13/2017		20
	A1-Admin Floor Plan	Control Room / Admin BLD Floor Plan	7/21/2017	10/16/2017		20
	A2-Admin Elevations	Control Room / Admin BLD Elevations	6/19/2017	9/22/2017		20
	A3-Admin Door & Finish Schedules	Control Room / Admin BLD Door & Finish Schedules	7/21/2017	10/19/2017		20
	A4-Admin Details	Control Room / Admin BLD Details	6/19/2017	10/16/2017		20
	A5-Firestop Details	Control Room / Admin BLD Details	9/22/2017	9/22/2017		20
	T24-Admin Building Envelope	Admin Building Energy Analysis Report	10/19/2017	10/19/2017		20
	660615 Carlsbad Energy Code Comply 061417	Certificate of Code compliance for the Administartion and Warehouse Building	6/14/2017	6/14/2017		20
	Agate - Admin Building Layout	Layout of the Admin Building HVAC	4/12/2017	4/12/2017		20
	Agate - Admin Building Load	HVAC loading requirements of the Admin Building minuse the Control Room	3/10/2017	3/10/2017		20
	Agate - Control Room Load	Admin Building control room HVAC load	3/10/2017	3/10/2017		20
	E0.1 - Note Sheet	E0.1 - Note Sheet.pdf	8/11/2017	11/15/2017		20
	E0.2 - Project Note Sheet & Fixture List	E0.2 - Project Note Sheet & Fixture List.pdf	8/11/2017	11/15/2017		20
	E0.3 - Singleline Diagram & Panel Schedules	E0.3 - Singleline Diagram & Panel Schedules.pdf	8/11/2017	11/15/2017		20
	E0.4 - Panel Schedules	E0.4 - Panel Schedules.odf	8/11/2017	11/15/2017		20
	E0.5 - Title 24 Notes	E0.5 - Title 24 Notes.pdf	8/11/2017	11/15/2017		20
	E1.1 - Admin BLDG Power Plan	E1.1 - Admin BLDG Power Plan.pdf	8/11/2017	11/15/2017		20
	E1.2 - Admin BLDG Lighting Plan	E1.2 - Admin BLDG Lighting Plan.pdf	8/11/2017	11/15/2017		20
	E2.1 - Warehouse Power & Lighting Plan	E2.1 - Warehouse Power & Lighting Plan.pdf	8/11/2017	11/15/2017		20
	E3.1 - Title 24 Calculations	E3.1 - Title 24 Calculations.pdf	8/11/2017	11/15/2017		20
	E3.2 - Title 24 Calculations	E3.2 - Title 24 Calculations.pdf	8/11/2017	11/15/2017		20
	E3.3 - Title 24 Calculations	E3.3 - Title 24 Calculations.pdf	8/11/2017	11/15/2017		20
	E3.4 - Outdoor Title 24 Calculations	E3.4 - Outdoor Title 24 Calculations.pdf	8/11/2017	11/15/2017		20
	E3.5 - Outdoor Title 24 Calculations	E3.5 - Outdoor Title 24 Calculations.pdf	8/11/2017	11/15/2017		20
	P0.1 - Schedules & Details	Schedule & Details	6/28/2017	9/27/2017		20
	P1.1-A - Admin BLDG AG Sewer & Vent Plan	Admin Above Grade Sewer + Vent Plan	6/6/2017	6/6/2017		20
	P1.1-B - Admin BLDG Domestic Water Plan	Admin Domestic Water Plan	6/15/2017	6/15/2017		20
	2048FP-101 ADMIN	Admin Building Hydraulic Design Information	9/11/2017	9/11/2017		20
	2048FP-101 Carlsbad seismic calc	Fire Protection Mechanical Seismic Brace Submittal Administration Building	10/27/2017	10/27/2017		20
	2048FP-101	Administation Building	9/11/2017	11/14/2017		20
	2048FP-200	Fire Protection Piping & Instrumentation Diagram	8/16/2017	10/27/2017		20
	2048FPE-100	Fire Alarm & Detection Systems Drawing Index, Bill of Materials, and General Installation Notes	10/30/2017	10/30/2017		20
	2048FPE-101	Fire Alarm & Detection Systems Typical Device Wiring Details	10/30/2017	10/30/2017		20
	2048FPE-102	Fire Alarm & Detection Systems Riser Diagram	10/30/2017	11/29/2017		20
	2048FPE-103	Fire Alarm & Detection Systems Input/Output Matrix (Sequence of Operation) MFAP, LFAP-1, LFAP-2, LFAP-3, LFAP-4	10/30/2017	10/30/2017		20
	2048FPE-104	Fire Alarm & Detection Systems Input/Output Matrix (Sequence of Operation) LFAP-5, LFAP-6, LFAP-7, LFAP-8, LFAP-9	10/30/2017	10/30/2017		20
	2048FPE-200	Fire Alarm & Detection Systems - Main Fire Alarm Panel Wiring & Arrangement Details	9/8/2017	11/29/2017		20
	2048FPE-200BC	Battery Calculations - Main Fire Alarm Panel Wiring & Arrangement Details	9/8/2017	9/8/2017		20
	2048FPE-200VD	Admin Voltage Drop Calculations	8/9/2017	8/9/2017		20
	2048FPE-300	Fire Alarm & Detection System Administration Building Devise Layout and Wiring	9/8/2017	10/30/2017		20
	Carlsbad PEMB Architectural Specifications.pdf	Specifications for Carlsbad Energy Center Administration / Control Building Warehouse Building	9/30/2017	10/27/2017		20
	Maintenance Shop Warehouse Building:					
	MB-1-Warehouse Structural Details	Warehouse BLDG - Structural Details MB-1	5/15/2017	7/10/2017		20
	MB-2-Warehouse Plan View	Warehouse BLDG - Structural Plan View MB-2	5/15/2017	5/15/2017		20
	MB-3-Warehouse Structural Elevations	Warehouse BLDG - Structural Elevations MB-3	5/15/2017	5/15/2017		20
	MB-4-Warehouse Structural Elevations	Warehouse BLDG - Structural Elevations MB-4	5/15/2017	5/15/2017		20
	T24-Warehouse Building Envelope	Warehouse Building Energy Analysis Report	10/19/2017	10/19/2017		20

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GEN-2: Master Drawing/Specification List and Schedule

Carlsbad Energy Center, LLC

Carlsbad Energy Center

Project No: 86184

Item No.	Drawing Number	Drawing Title	Drawing Schedule Initial	Final	CCR	Major Structure/Equipment
	170577-0	Warehouse Bldg - Sheeting Plan & Details	5/25/2017	6/13/2017		20
	Agate - Warehouse Building Layout	Layout of the HVAC systems inside the Warehouse	3/10/2017	3/10/2017		20
	Agate - Warehouse Building Load	HVAC loading for the Admin Building	3/10/2017	3/10/2017		20
	A1-Warehouse Floor Plan	Warehouse / Maintenance BLD Floor Plan	6/3/2017	10/16/2017		20
	A2-Warehouse Elevations	Warehouse / Maintenance BLD Elevations	6/3/2017	6/3/2017		20
	A3-Warehouse Door & Finish Schedules	Warehouse Door & Finish Schedules	6/3/2017	10/16/2017		20
	E2.1 - Warehouse Power & Lighting Plan	E2.1 - Warehouse Power & Lighting Plan.pdf	8/11/2017	11/15/2017		20
	P2.1-A - Warehouse Sewer & Vent Plan	Warehouse Underground Sewer + Vent with Above Grade Piping Plan	6/6/2017	6/6/2017		20
	P2.1-B - Warehouse Domestic Water Plan	Warehouse Domestic Water Plan	6/15/2017	6/15/2017		20
	Electrical:					
	Balance of Plant PDCs					
	64447-2.pdf	Structural Design Calculations	3/14/2017	3/14/2017		8
	64447-2-1-001.pdf	Cover Sheet	7/13/2017	7/13/2017		8
	64447-2-1-101.pdf	Overall Plan View	5/19/2017	5/19/2017		8
	64447-2-1-200.pdf	Assembled Base Detail	3/8/2007	3/8/2007		8
	64447-2-1-205.pdf	Base Detail	3/8/2017	3/8/2017		8
	64447-2-1-230.pdf	Structural Steel Detail	5/16/2017	5/16/2017		8
	64447-2-1-240.pdf	Platform A Details	7/12/2017	7/12/2017		8
	64447-2-241.pdf	Platform B Details	7/12/2017	7/12/2017		8
	64447-2-1-245.pdf	Stair Detail	7/12/2017	7/12/2017		8
	64447-2-1-250.pdf	Foundation Load Details	2/10/2017	2/10/2017		8
	64447-2-1-300.pdf	Elevation Views	5/16/2017	5/16/2017		8
	64447-2-1-310.pdf	Elevation Views	5/16/2017	5/16/2017		8
	64447-2-1-400.pdf	Construction Details	5/16/2017	5/16/2017		8
	6447-2-1-401.pdf	Construction Details	5/16/2017	5/16/2017		8
	64447-2-1-515.pdf	Connection Details	3/8/2017	3/8/2017		8
	64447-2-1-520.pdf	Center of Gravity Detail	3/8/2017	3/8/2017		8
	64447-2-1-CERT.pdf	State Cert	3/8/2017	3/8/2017		8
	64447-3.pdf	Structural Design Calculations	4/7/2017	4/7/2017		8
	64447-3-1-001.pdf	Cover Sheet	7/13/2017	7/13/2017		8
	64447-3-1-101.pdf	Overall Plan View	5/19/2017	5/19/2017		8
	64447-3-1-200.pdf	Assembled Base Detail	4/5/2017	4/5/2017		8
	64447-3-1-205.pdf	Base Detail	4/5/2017	4/5/2017		8
	64447-3-1-230.pdf	Structural Steel Detail	5/10/2017	5/10/2017		8
	64447-3-1-240.pdf	Platform A Details	7/13/2017	7/13/2017		8
	64447-3-1-241.pdf	Platform B Details	7/13/2017	7/13/2017		8
	64447-3-1-245.pdf	Stair Detail	5/10/2017	5/10/2017		8
	64447-3-1-250.pdf	Foundation Load Details	2/10/2017	2/10/2017		8
	64447-3-1-300.pdf	Elevation Views	5/10/2017	5/10/2017		8
	64447-3-1-310.pdf	Elevation Views	5/10/2017	5/10/2017		8
	64447-3-1-400.pdf	Construction Details	5/10/2017	5/10/2017		8
	64447-3-1-401.pdf	Construction Details	5/10/2017	5/10/2017		8
	64447-3-1-515.pdf	Connection Details	4/5/2017	4/5/2017		8
	64447-3-1-520.pdf	Center of Gravity Detail	4/5/2017	4/5/2017		8
	64447-3-1-CERT.pdf	State Cert	4/5/2017	4/5/2017		8
	64447-1.pdf	Structural Design Calculations	4/11/2017	4/11/2017		8
	64447-1-1-001.pdf	Cover Page	6/30/2017	6/30/2017		8
	64447-1-1-100.pdf	Floor Plan View	6/28/2017	6/28/2017		8
	64447-1-1-101.pdf	Overall Plan View	6/5/2017	6/5/2017		8
	64447-1-1-105.pdf	Ceiling Plan View	6/20/2017	6/20/2017		8
	64447-1-1-200.pdf	Assembled Base Detail	6/14/2017	6/14/2017		8
	64447-1-1-205-1.pdf	Base Detail Section #1	4/4/2017	4/4/2017		8
	64447-1-1-205-2.pdf	Base Detail Section #2	4/4/2017	4/4/2017		8
	64447-1-1-205-3.pdf	Base Detail Section #3	4/4/2017	4/4/2017		8
	64447-1-1-205-4.pdf	Base Detail Section #4	5/24/2017	5/24/2017		8
	64447-1-1-210.pdf	Overall Floor Cutout Detail	6/28/2017	6/28/2017		8
	64447-1-1-230.pdf	Structural Steel Details	5/24/2017	5/24/2017		8
	64447-1-1-230-1.pdf	Structural Steel Details Sect 1	5/24/2017	5/24/2017		8
	64447-1-1-230-2.pdf	Structural Steel Details Sect 2	3/31/2017	3/31/2017		8
	64447-1-1-230-3.pdf	Structural Steel Details Sect 3	3/31/2017	3/31/2017		8
	64447-1-1-230-4.pdf	Structural Steel Details Sect 4	3/31/2017	3/31/2017		8
	64447-1-1-235.pdf	Superstrucdture Details	3/27/2017	3/27/2017		8
	64447-1-1-240.pdf	Platform Details	5/25/2017	5/25/2017		8
	64447-1-1-241.pdf	Platform B Details	5/25/2017	5/25/2017		8
	64447-1-1-242.pdf	Platform C Details	6/15/2017	6/15/2017		8
	64447-1-1-245.pdf	Stair Detail	5/22/2017	5/22/2017		8
	64447-1-1-250.pdf	Foundation Load Details	2/10/2017	2/10/2017		8
	64447-1-1-300.pdf	Elevation Views	5/30/2017	5/30/2017		8
	64447-1-1-310.pdf	Elevation Views	5/30/2017	5/30/2017		8
	64447-1-1-400.pdf	Miscellaneous Details	3/31/2017	3/31/2017		8
	64447-1-1-510.pdf	Assembly Instructions	3/31/2017	3/31/2017		8
	64447-1-1-515.pdf	Connection Details	5/19/2017	5/19/2017		8
	64447-1-1-520.pdf	Center of Gravity Detail	3/13/2017	3/13/2017		8
	64447-1-1-CERT.pdf	State Cert	3/31/2017	3/31/2017		8
	64447-5.pdf	Structural Design Calculations	3/11/2017	3/11/2017		8

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GEN-2: Master Drawing/Specification List and Schedule

Carlsbad Energy Center, LLC

Carlsbad Energy Center

Project No: 86184

Item No.	Drawing Number	Drawing Title	Drawing Schedule Initial	Final	CCR	Major Structure/Equipment
	64447-5-1-001.pdf	Cover Sheet	5/5/2017	5/5/2017		8
	64447-5-1-100.pdf	Floor Plan View	5/5/2017	5/5/2017		8
	64447-5-1-200.pdf	Assembled Base Detail	3/6/2017	3/6/2017		8
	64447-5-1-205.pdf	Base Detail	5/5/2017	5/5/2017		8
	64447-5-1-210.pdf	Floor Cutout Detail	3/6/2017	3/6/2017		8
	64447-5-1-230.pdf	Structural Steel Details	5/5/2017	5/5/2017		8
	64447-5-1-250.pdf	Foundation Load Details	2/6/2017	2/6/2017		8
	64447-5-1-300.pdf	Elevation Views	5/5/2017	5/5/2017		8
	64447-5-1-310.pdf	Elevation Views	5/5/2017	5/5/2017		8
	64447-5-1-400.pdf	Construction Details	5/5/2017	5/5/2017		8
	64447-5-1-401.pdf	Construction Details	5/9/2017	5/9/2017		8
	64447-5-1-520.pdf	Center of Gravity	11/14/2016	11/14/2016		8
	64447-5-1-CERT.pdf	State Certification	3/6/2017	3/6/2017		8
	64447-4.pdf	Structural Design Calculations	3/9/2017	3/9/2017		8
	64447-4-1-001.pdf	Cover Sheet	5/10/2017	5/10/2017		8
	64447-4-1-100.pdf	Floor Plan View	5/10/2017	5/10/2017		8
	64447-4-1-200.pdf	Assembled Base Detail	3/6/2017	3/6/2017		8
	64447-4-1-205.pdf	Base Detail	3/6/2017	3/6/2017		8
	64447-4-1-210.pdf	Floor Cutout Detail	3/6/2017	3/6/2017		8
	64447-4-1-230.pdf	Structural Steel Details	5/10/2017	5/10/2017		8
	64447-4-1-250.pdf	Foundation Load Details	2/8/2017	2/8/2017		8
	64447-4-1-300.pdf	Elevation Views	5/10/2017	5/10/2017		8
	64447-4-1-310.pdf	Elevation Views	5/10/2017	5/10/2017		8
	64447-4-1-400.pdf	Construction Details	5/10/2017	5/10/2017		8
	64447-4-1-401.pdf	Construction Details	5/10/2017	5/10/2017		8
	64447-4-1-520.pdf	Center of Gravity Detail	11/11/2016	11/11/2016		8
	64447-4-1-CERT.pdf	State Certification	3/6/2017	3/6/2017		8
	64447-1-1-T24	Building Energy Analysis Report - 64447-1-1	4/11/2017	1/2/2018		8
	64447-2-1-T24	Building Energy Analysis Report - 64447-2-1	4/11/2017	1/2/2018		8
	64447-3-1-T24	Building Energy Analysis Report - 64447-3-1	4/11/2017	1/2/2018		8
	64447-4-1-T24	Building Energy Analysis Report - 64447-4-1	4/11/2017	1/2/2018		8
	64447-5-1-T24	Building Energy Analysis Report - 64447-5-1	4/11/2017	1/2/2018		8
	BOP - Cert Letters	BOP Certification Letters	3/31/2017	9/11/2017		8
	CGT and Intercooler MCC and CGT PDC:					
	000005	Electrical Symbols Abbreviations and Reference Data	7/29/2015	7/29/2015		18
	13396-15-324	Structural Engineering Calculations for Electrical Building Power Distribution Center	8/15/2016	8/15/2016		18
	1307S-13396-GN-DAS-101	PDC General, Structural, and Architectural Drawings	4/25/2017	4/25/2017		18
	1307S-13396-EL-DWG-100	PDC Electrical Drawings	12/20/2017	12/20/2017		18
	7262450-698006	Interconnect Plan Electrical	2/3/2016	7/12/2016		18
	7262450-698007	Interconnect Wiring Diagram Customer	2/3/2016	6/12/2016		18
	7262450-698009	Interconnect Cable Schedule	2/11/2016	7/5/2016		18
	7262450-698030	System Schematic Lighting and Distribution	8/4/2015	8/4/2015		18
	7262450-698035	Schedule Motor Control Center	12/10/2015	7/12/2016		18
	7262450-698044	Schematic Diagram Motor Control Center	2/3/2016	7/12/2016		18
	BOP-396-20491	Membane, MCC Evolution	8/13/2015	8/13/2015		18
	G20491-364-A001	Electro-Tech Industries, 240VDC, 40HP Starter Outline Diagram	7/24/2015	4/26/2016		18
	G20491-364-E001	Electro-Tech Industries, 40HP Starter Interface Connection	7/24/2015	4/26/2016		18
	G20491-364-E002	Electro-Tech Industries, 240VDC, 40HP Starter Schematic Diagram	7/24/2015	4/26/2016		18
	G20491-364-E003	Electro-Tech Industries, 40HP Motor Starter PLC I/O'S & Control Circuit	7/24/2015	4/26/2016		18
	Structural:					
	Foundations:					
	86184-SB-Index1	Cover-Index	4/12/2018	4/12/2018		1-14, 16, 18-20, 24-28
	86184-SB-Index2	Cover-Index	4/12/2018	4/12/2018		1-14, 16, 18-20, 24-28
	86184-SB-Index3	Unassigned				
	86184-SB-1001	Concrete Standard Detail Sheet 1	4/15/2016	3/1/2017		1-14, 16, 18-20, 24-28
	86184-SB-1002	Concrete Standard Detail Sheet 2	4/14/2016	4/14/2016		1-14, 16, 18-20, 24-28
	86184-SB-1003	Concrete Standard Detail Sheet 3	4/14/2016	4/14/2016		1-14, 16, 18-20, 24-28
	86184-SB-1004	Concrete Standard Detail Sheet 4	4/14/2016	4/14/2016		1-14, 16, 18-20, 24-28
	86184-SB-1005	Concrete Standard Detail Sheet 5	4/14/2016	4/14/2016		1-14, 16, 18-20, 24-28
	86184-SB-1006	Concrete Standard Detail Sheet 6	4/14/2016	4/14/2016		1-14, 16, 18-20, 24-28
	86184-SB-1007	Concrete Standard Detail Sheet 7	4/14/2016	4/14/2016		1-14, 16, 18-20, 24-28
	86184-SB-1008	Building Code Required Statement of Special Inspections	4/14/2016	4/14/2016		1-14, 16, 18-20, 24-28
	86184-SB-1013	Units 6, 8 & 10: Combustion Turbine, Generator & Inlet Air Filter Foundation Plans & Sections	2/24/2016	3/30/2017		1, 3, 10
	86184-SB-1014	Units 6, 8 & 10: Combustion Turbine, Generator & Inlet Air Filter Foundation Sections	2/24/2016	6/29/2017		1, 3, 10
	86184-SB-1015	Unassigned				
	86184-SB-1016	Units 6, 8 & 10: Combustion Turbine, Generator & Inlet Air Filter Embeds Plan, Sect & Det	2/24/2016	3/30/2017		1, 3, 10
	86184-SB-1017	Units 6, 8, & 10: Combustion Turbine, Generator & Inlet Air Filter Embeds Sections & Details, Sheet 1	2/24/2016	2/24/2016		1, 3, 10
	86184-SB-1018	Units 6, 8, & 10: Combustion Turbine, Generator & Inlet Air Filter Embeds Sections & Details, Sheet 2	2/24/2016	2/24/2016		1, 3, 10
	86184-SB-1019	Units 6, 8, & 10: Combustion Turbine, Generator & Inlet Air Filter Utility Embeds Plan	2/24/2016	2/24/2016		1, 3, 10
	86184-SB-1020	Units 6, 8 & 10: SCR and Stack Foundation Plan and Sections	2/16/2016	3/1/2017		2
	86184-SB-1021	Units 6, 8 & 10: SCR and Stack Foundation Sections and Details, Sheet 1	2/16/2016	3/1/2017		2
	86184-SB-1022	Units 6, 8 & 10: SCR and Stack Foundation Sections and Details, Sheet 2	2/16/2016	2/16/2016		2
	86184-SB-1023	Unassigned				
	86184-SB-1024	Unassigned				
	86184-SB-1025	Units 6, 8,& 10: Intercooler Equipment Area Foundations Plan and Sections	4/28/2016	4/28/2016		7
	86184-SB-1026	Units 6, 8,& 10: Intercooler Equipment Area Foundations Sections & Details	4/28/2016	4/28/2016		7
	86184-SB-1027	Unassigned				
	86184-SB-1028	Unassigned				
	86184-SB-1029	Units 6, 8,& 10: SCR & Stack Equipment Area Foundationa Plans Sections & Details	4/7/2017	4/7/2017		2
	86184-SB-1030	Units 6, 8,& 10: Combustion Turbine CT Area Equipment Foundation Plans, Sections & Details	4/7/2017	12/4/2017		1
	86184-SB-1031	Units 6, 8,& 10: Combustion Turbine Area Electrical Equipment Foundation Plans, Sections & Details	7/14/2017	8/17/2017		2, 5
	86184-SB-1032	Unassigned				

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GEN-2: Master Drawing/Specification List and Schedule

Carlsbad Energy Center, LLC

Carlsbad Energy Center

Project No: 86184

Item No.	Drawing Number	Drawing Title	Drawing Schedule Initial	Final	CCR	Major Structure/Equipment
	86184-SB-1033	Units 6, 8,& 10: Combustion Turbine Area Slab On Grades, Plans, Sections & Details	4/7/2017	6/23/2017		28
	86184-SB-1034	Units 6, 8, & 10: HTOIC Heat Exchanger and Lube Oil Heat Exchanger Foundation Plan, Sections & Details	7/8/2016	12/7/2017		7, 9
	86184-SB-1035	Units 6, 8, & 10: HTOIC Heat Exchanger and Lube Oil Heat Exchanger Foundation Sections & Details	7/8/2016	10/2/2017		7, 9
	86184-SB-1036	Units 6, 8,& 10: Combustion Turbine Area Miscellaneous Plans, Sections & Details, Sheet 1	4/7/2017	10/11/2017		28
	86184-SB-1037	Units 6, 8,& 10: Combustion Turbine Area Miscellaneous Plans, Sections & Details, Sheet 2	12/14/2017	12/14/2017		1
	86184-SB-1038	Unassigned				
	86184-SB-1039	Ammonia Pipe Trench Plan	6/26/2017	9/1/2017		2
	86184-SB-1040	Ammonia Pipe Trench Plan Continued	6/26/2017	9/1/2017		2
	86184-SB-1041	Ammonia Pipe Trench Plan Continued	6/26/2017	6/26/2017		2
	86184-SB-1042	Ammonia Pipe Trench Sections and Details	6/26/2017	6/26/2017		2
	86184-SB-1043	Units 7 & 9: Combustion Turbine, Generator & Inlet Air Filter Foundation Plan & Sections	6/26/2017	3/30/2017		1, 3, 10
	86184-SB-1044	Units 7 & 9: Combustion Turbine, Generator & Inlet Air Filter Foundation Sections	2/24/2016	6/29/2017		1, 3, 10
	86184-SB-1045	Unassigned				
	86184-SB-1046	Units 7 & 9: Combustion Turbine, Generator & Inlet Air Filter Embeds Plan, Sect & Det	2/24/2016	3/30/2017		1, 3, 10
	86184-SB-1047	Units 7 & 9: Combustion Turbine, Generator & Inlet Air Filter Embeds Sections & Details, Sheet 1	2/24/2016	2/24/2016		1, 3, 10
	86184-SB-1048	Units 7 & 9: Combustion Turbine, Generator & Inlet Air Filter Embeds Sections & Details, Sheet 2	2/24/2016	2/24/2016		1, 3, 10
	86184-SB-1049	Units 7 & 9: Combustion Turbine, Generator & Inlet Air Filter Utility Embeds Plan	2/24/2016	2/24/2016		1, 3, 10
	86184-SB-1050	Units 7 & 9: SCR and Stack Foundation Plan and Sections	2/16/2016	3/1/2017		2
	86184-SB-1051	Units 7 & 9: SCR and Stack Foundation Sections and Details, Sheet 1	2/16/2016	3/1/2017		2
	86184-SB-1052	Units 7 & 9: SCR and Stack Foundation Sections and Details, Sheet 2	2/16/2016	2/16/2016		2
	86184-SB-1053	Unassigned				
	86184-SB-1054	Unassigned				
	86184-SB-1055	Units 7 & 9: Intercooler Equipment Area Foundations Plan and Sections	4/28/2016	4/28/2016		15
	86184-SB-1056	Units 7 & 9: Intercooler Equipment Area Foundations Sections and Details	4/28/2016	4/28/2016		15
	86184-SB-1057	Unassigned				
	86184-SB-1058	Unassigned				
	86184-SB-1059	Units 7 & 9: SCR & Stack Equipment Area Foundation Plan, Sections & Details	4/7/2017	4/7/2017		2
	86184-SB-1060	Units 7 & 9: Combustion CT Area Equipment Foundation Plan, Sections & Details	4/7/2017	1/9/2018		1
	86184-SB-1061	Units 7 & 9: Combustion Turbine Area Electrical Equipment Fdns Plans, Sections & Details	7/14/2017	7/14/2017		2, 5
	86184-SB-1062	Unassigned				
	86184-SB-1063	Units 7 & 9: Combustion Turbine Area Slab On Grades Plans, Sections & Details	4/7/2017	6/23/2017		28
	86184-SB-1064	Units 7 & 9 HTOIC Heat Exchanger And Lube Oil Heat Exchanger Foundation Plan, Sections And Details	7/8/2016	12/6/2017		7, 9
	86184-SB-1065	Units 7 & 9: HTOIC & Oil Cooler Fdn Sections & Details	7/8/2016	10/2/2017		7, 9
	86184-SB-1066	Units 7 & 9: Combustion Turbine Area Miscellaneous Plans, Sections & Details, Sheet 1	4/7/2017	4/7/2017		28
	86184-SB-1067	Units 7 & 9: Combustion Turbine Area Miscellaneous Plans, Sections & Details, Sheet 2	12/14/2017	12/14/2017		1
	86184-SB-1068	Unassigned				
	86184-SB-1069	Units 6 & 8: 230 KV GSU Transformer Foundation, Containment and Fire Walls Plans and Sections	10/28/2016	7/5/2017		4
	86184-SB-1070	Units 6 & 8: 230 KV GSU Transformer Foundation, Containment and Fire Walls Sections and Details	10/28/2016	8/7/2017		4
	86184-SB-1071	Units 6 & 8: 230 KV GSU Transformer Platform Plans, Sections and Details	10/28/2016	7/5/2017		4
	86184-SB-1072	Units 7 & 9: 230 KV GSU Transformer Foundation, Containment and Fire Walls Plans and Sections	10/28/2016	7/5/2017		4
	86184-SB-1073	Units 7 & 9: 230 KV GSU Trasformer Foundation, Containment and Fire Walls Sections and Details	10/28/2016	8/7/2017		4
	86184-SB-1074	Units 7 & 9: 230 KV GSU Transformer Platform Plans, Sections and Details	10/28/2016	7/5/2017		4
	86184-SB-1075	Unit 10: 138 KV GSU Transformer Foundation, Containment and Fire Walls Plans and Sections	10/28/2016	7/5/2017		4
	86184-SB-1076	Unit 10: 138 KV GSU Transformer Foundation, Containment and Fire Walls Sections and Details	10/28/2016	8/7/2017		4
	86184-SB-1077	Unit 10: 138 KV GSU Transformer Platform Plan, Sections and Details	10/28/2016	7/5/2017		4
	86184-SB-1078	Auxiliary Transformer Foundation Containment and Fire Walls Plan, Sections & Details	3/30/2017	9/8/2017		5
	86184-SB-1079	Auxiliary Transformer Foundation Containment and Fire Walls Sections & Details	3/30/2017	3/30/2017		5
	86184-SB-1080	Auxiliary Transformer Containment Platform Plan, Sections and Details	3/30/2017	3/30/2017		5
	86184-SB-1081	Station Services Transformer Foundation Plans, Sections & Details	9/8/2017	9/8/2017		
	86184-SB-1082	Unassigned				
	86184-SB-1083	Units 6, 7, 8, & 9: CTG Power Distribution Center Foundation Plans, Sections & Details	9/8/2016	8/23/2017		18
	86184-SB-1084	Unit 10: CTG Power Distribution Center Foundation Plans, Sections & Details	9/8/2016	10/24/2017		18
	86184-SB-1085	Unit 6/7 & 8/9: Unit Power Distribution Center Foundation Plans, Sections & Details	3/28/2017	3/28/2017		8
	86184-SB-1086	Unit 10: Unit BOP Power Distribution Center Foundation Plan, Sections & Details	3/28/2017	3/28/2017		8
	86184-SB-1088	Unit 6/7, 8/9 , 10: CEMS Building Foundation Plan, Sections & Details	7/28/2017	9/12/2017		14
	86184-SB-1089	230 KV & 138 KV System Enclosure Foundations Foundation Plan, Sections & Details	7/14/2017	9/1/2017		8
	86184-SB-1090	Unassigned				
	86184-SB-1091	Service/Fire Water Tank Foundation Plan, Sections and Details	6/30/2017	6/30/2017		25
	86184-SB-1092	Demin Storage Tank Foundation Plan, Sections and Details	6/30/2017	6/30/2017		26
	86184-SB-1093	Service/Fire Water & Demin Storage Tank Forwarding Pumps Foundation Plan, Sections and Details	8/31/2017	8/31/2017		25, 26
	86184-SB-1094	Fire Pump Enclosure Foundation Plan, Sections and Details	7/24/2017	9/1/2017		
	86184-SB-1095	Fuel Gas Compressor Building Foundation Plan, Sections and Details	6/9/2017	10/27/2017		12
	86184-SB-1096	Fuel Gas Compressor Cooler Foundation Plan, Sections and Details	7/25/2017	9/1/2017		12
	86184-SB-1097	Fuel Gas Filter Foundation Plan, Sections and Details	6/9/2017	6/9/2017		12
	86184-SB-1098	Demin Trailer Slab Area Plan, Sections and Details	12/14/2017	3/27/2018		13
	86184-SB-1099	Ammonia Tank Foundation, Containment & Truck Unloading Slab Plan	5/31/2017	6/7/2018		24
	86184-SB-1100	Ammonia Tank Foundation, Containment & Truck Unloading Slab Sections and Details	5/31/2017	11/28/2017		24
	86184-SB-1101	Ammonia Tertiary Containment Vault Plans, Sections, And Details	3/1/2016	11/28/2017		24
	86184-SB-1102	Air Compressor Area Foundation Plan, Sections and Details	8/11/2017	8/11/2017		11
	86184-SB-1103	Fuel Gas Compressor Cooler Pipe Support Foundation Plan, Sections and Details	9/20/2017	10/12/2017		12
	86184-SB-1104	Storm Water Pits East and West Plans	3/8/2016	10/4/2017		22
	86184-SB-1105	Storm Water Pits East and West Sections And Details	3/8/2016	6/24/2016		22
	86184-SB-1106	Miscellaneous Yard Structures Foundation Plans and Sections	12/14/2017	2/16/2018		23
	86184-SB-1107	Warehouse Building and Station Service Transformer Foundation Plan	05/24/2017	7/5/2017		19
	86184-SB-1108	Warehouse Building and Station Service Transfromer Foundation Sections and Details	05/24/2017	12/11/2017		19
	86184-SB-1109	Administration Building Foundation Plan	4/28/2017	9/13/2017		20
	86184-SB-1110	Administration Building Foundation Sections and Details	4/28/2017	5/10/2017		20
	86184-SB-1111	Typical Pipe Support Foundations Plan and Details	12/14/2017	12/14/2017		
	86184-SB-1114	Slab On Grades For Buried Tanks Plan, Sections & Details	4/7/2017	6/23/2017		22
	86184-SB-1115	Guard Shack Foundation Plan, Sections, and Details	4/2/2018	4/2/2018		
	86184-SB-1116	Berm Stair Plans, Sections, and Details	6/17/2016	7/20/2018		
	Fuel Gas Compressor Enclosure					

CARLSBAD POWER CONSTRUCTORS

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GEN-2: Master Drawing/Specification List and Schedule

Carlsbad Energy Center, LLC

Carlsbad Energy Center

Project No: 86184

Item No.	Drawing Number	Drawing Title	Drawing Schedule Initial	Final	CCR	Major Structure/Equipment
	10186-0	Carlsbad Energy Center Noise Enclosure	9/6/2017	1/28/2018		12
	Sound Enclosure PE Calcs	Noise Enclosure Calculations Carlsbad Energy Center	9/7/2017	9/7/2017		12

Construction Specifications

Electrical

Spec Section	Specification Description
133423	Power Distribution Centers
260002	Electrical Equipment – General Technical Requirements
260504	Wire, Cable and Accessories
261313	4.16kV Metalclad Switchgear and Bus
262300	480V Switchgear and Bus
262400	Panelboards, Switchboards, and Transformers
262419	480V Motor Control Center Equipment
263353	Uninterruptible Power System

Structural

Spec Section	Specification Description
031000	Concrete Formwork
032000	Concrete Reinforcment
033000	Concrete
050513	Galvanizing
051200	Steel

Major Structure and Equipment Grouping

1	Combustion Gas Turbine (CGT) Foundation and Connections
2	Selective Catalytic Reduction Stack Foundations and Connections
3	CGT Generator Foundations and Connections
4	CGT Transformer Foundations and Connections
5	Auxiliary Transformer Foundations and Connections
6	Generator Circuit Breaker Foundations and Connections
7	Fin Fan Cooler Foundations and Connections
8	Balance of Plant PDC
9	CGT Lube Oil Cooler Foundations and Connections
10	CGT Inlet Filter Foundations and Connections
11	Air Compressor Building Structure, Foundations and Connections
12	Fuel Gas Compressors Building Structure, Foundations and Connections
13	Water Treatment Trailer Foundations and Connections
14	Continuous Emissions Monitoring System Foundations and Connections
15	Shell and Tube Heat Exchanger Foundations and Connections
16	Auxiliary Skid Foundations and Connections
17	Attemporation Blower Skid Foundations and Connections
18	CGT and Intercooler MCC
19	Warehouse and Maintenance Building Structure, Foundations and Connections
20	Control Room and Administration Building Structure, Foundations and Connections
21	Emergency Diesel Generator Foundations and Connections
22	Storage Tanks Structure, Foundations and Connections
23	Fuel Gas Metering Foundations and Connections
24	Ammonia Prep Foundations and Connections
25	Raw/Fire Water Tank Foundation and Connections
26	Demineralized Water Storage Tank Foundation and Connections
27	Fire Water Pumps Building Foundations and Connections
28	Crane Maintenance Pad Foundations and Connections

CARLSBAD POWER CONSTRUCTORS

BURNS McDONNELL | PSC Primoris Services Corporation ARB Industrial

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TSE-1: Master Drawing/Specification List and Schedule

Carlsbad Energy Center, LLC

Carlsbad Energy Center

Project No: 86184

Item No.	Drawing Number	Drawing Title	Submittal Schedule Initial	Final	CCR	Major Equipment
	Transmission & Distribution:					
	Plan & Profile Drawings					
	86184-TDA-101	Overhead Transmission Plan & Profile	5/8/2017	8/16/2017		4, 10
	86184-TDA-102	Overhead Transmission Structure List	8/16/2017	10/11/2017		4, 10
	86184-TDA-103	Overhead Transmission Layout Plan	9/20/2017	9/20/2017		4, 10
	86184-EP150	Cover - Underground Transmission Line Duct Bank	5/20/2016	7/14/2017		3
	86184-EP151	Index - Underground Transmission Line Duct Bank	5/20/2016	7/14/2017		3
	86184-EP152	Site Map & General Notes - Underground Transmission Line Duct Bank	5/20/2016	9/12/2017		3
	86184-EP153	230kV Underground Plan and Profile	5/20/2016	10/11/2017		3
	86184-EP154-SH1	230kV Underground Details Sheet 1 of 3	5/20/2016	10/11/2017		3
	86184-EP154-SH2	230kV Underground Details Sheet 2 of 3	5/20/2016	10/11/2017		3
	86184-EP154-SH3	230kV Underground Details Sheet 3 of 3	5/20/2016	10/11/2017		3
	86184-TDS-100	Carlsbad Energy Center Substation Equipment Plan	7/28/2017	7/28/2017		1, 7
	Details:					
	86184-TDA-401	Single Circuit Deadend Assembly Drawing	5/3/2017	11/17/2017		10
	86184-TDA-402	Double Circuit Deadend Assembly Drawing	5/3/2017	11/17/2017		10
	86184-TDA-403	Double Circuit Tangent Assembly Drawing	5/3/2017	11/17/2017		10
	86184-TDA-404	Double Circuit Deadend Assembly Drawing	5/3/2017	11/17/2017		10
	86184-TDA-405	Double Circuit Deadend Assembly Drawing	5/3/2017	11/17/2017		10
	86184-TDA-406	Single Circuit Deadend Tap Assembly Drawing	5/3/2017	11/17/2017		10
	86184-TDA-407	Single Circuit Deadend Assembly Drawing	5/3/2017	11/17/2017		10
	86184-TDA-408	Single Circuit Deadend Tap Assembly Drawing	5/3/2017	11/17/2017		10
	86184-TDA-409	Underground Riser Structure Assembly Drawing	5/3/2017	11/17/2017		10
	86184-TDA-412	138-kV Substation Deadend Assmebly Drawing	5/3/2017	11/17/2017		7
	86184-TDA-413	230-kV Substation Deadend Assembly Drawing	5/3/2017	11/17/2017		7
	86184-TDA-414	230-kV Substation Deadend Assembly Drawing	5/3/2017	11/17/2017		7
	86184-TDA-501	Drilled Shaft Foundation Detail	5/3/2017	11/17/2017		7
	86184-TDS-500	CARLSBAD ENERGY CENTER UNIT 10 138KV SUBSTATION EQUIPMENT SECTIONS A AND B	7/28/2017	7/28/2017		1, 7
	86184-TDS-501	CARLSBAD ENERGY CENTER UNIT 6 230KV SUBSTATION EQUIPMENT SECTIONS C AND D	7/28/2017	7/28/2017		1, 7
	86184-TDS-502	CARLSBAD ENERGY CENTER UNIT 7 230KV SUBSTATION EQUIPMENT SECTIONS E AND F	7/28/2017	7/28/2017		1, 7
	86184-TDS-503	CARLSBAD ENERGY CENTER UNIT 8 230KV SUBSTATION EQUIPMENT SECTIONS G AND H	7/28/2017	7/28/2017		1, 7
	86184-TDS-504	CARLSBAD ENERGY CENTER UNIT 9 230KV SUBSTATION EQUIPMENT SECTIONS I AND J	7/28/2017	7/28/2017		1, 7
	86184-ES-720	CARLSBAD ENERGY CENTER SUBSTATION ABOVE GRADE DETAILS	6/23/2017	6/23/2017		1, 7
	86184-ES-730	CARLSBAD ENERGY CENTER SUBSTATION CONDUIT DETAILS	6/23/2017	6/23/2017		11
	86184-ES-751	CARLSBAD ENERGY CENTER SUBSTATION GROUNDING DETAILS	5/31/2017	5/31/2017		12
	86184-ES-752	CARLSBAD ENERGY CENTER SUBSTATION GROUNDING DETAILS	5/31/2017	5/31/2017		12
	86184-ES-753	CARLSBAD ENERGY CENTER SUBSTATION GROUNDING DETAILS	5/31/2017	5/31/2017		12
	86184-ES-760	CARLSBAD ENERGY CENTER SUBSTATION BILL OF MATERIAL	1/18/2018	1/18/2018		11
	Diagrams:					
	86184-TDA-201	Overhead Phasing Diagram	8/16/2017	3/28/2018		7
	86184-TDA-202	Overhead Damper Placement Plan	9/11/2017	9/11/2017		7
	86184-TDA-203	Overhead Bird Diverter Plan	8/16/2017	8/16/2017		1
	86184-TDA-204	Overhead Stringing/Sag Charts	12/1/2017	12/1/2017		1
	Foundations:					
	86184ES0820.pdf	CARLSBAD ENERGY CENTER GSU YARD FOUNDATION PLAN VIEW	7/27/2017	7/27/2017		3
	86184ES0821.pdf	CARLSBAD ENERGY CENTER DRILLED SHAFT FOUNDATION DETAILS	7/27/2017	9/1/2017		3
	86184ES0822.pdf	CARLSBAD ENERGY CENTER MAT SLAB FOUNDATION DETAILS	7/27/2017	7/27/2017		3
	86184ES0823.pdf	CARLSBAD ENERGY CENTER MAT SLAB FOUNDATION DETAILS	7/27/2017	7/27/2017		3
	Steel:					
	86184-TDA-300	Structure Summary	3/17/2017	3/17/2017		10

CARLSBAD POWER CONSTRUCTORS

BURNS McDONNELL | PSC Primoris Services Corporation ARB Industrial

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TSE-1: Master Drawing/Specification List and Schedule

Carlsbad Energy Center, LLC

Carlsbad Energy Center

Project No: 86184

Item No.	Drawing Number	Drawing Title	Submittal Schedule Initial	Final	CCR	Major Equipment
	86184-TDA-301_1.pdf	Double Circuit Deadend Tubular Steel Monopole	3/17/2017	8/16/2017		10
	86184-TDA-301_2.pdf	Double Circuit Deadend Tubular Steel Monopole	3/17/2017	8/16/2017		10
	86184-TDA-301_3.pdf	Double Circuit Deadend Tubular Steel Monopole	3/17/2017	8/16/2017		10
	86184-TDA-301_4.pdf	Double Circuit Deadend Tubular Steel Monopole	3/17/2017	8/16/2017		10
	86184-TDA-302_1.pdf	Single Circuit Deadend Tubular Steel Monopole	3/17/2017	8/16/2017		10
	86184-TDA-302_2.pdf	Single Circuit Deadend Tubular Steel Monopole	3/17/2017	10/3/2017		10
	86184-TDA-303_1.pdf	Single Circuit Deadend Tap Tubular Steel Monopole	3/17/2017	8/16/2017		10
	86184-TDA-303_2.pdf	Single Circuit Deadend Tap Tubular Steel Monopole	3/17/2017	8/16/2017		10
	86184-TDA-303_3.pdf	Single Circuit Deadend Tap Tubular Steel Monopole	3/17/2017	8/16/2017		10
	86184-TDA-304	Double Circuit Tangent Tubular Steel Monopole	3/17/2017	8/16/2017		10
	86184-TDA-305_1.pdf	Underground Riser Structure Framing	3/17/2017	8/16/2017		3
	86184-TDA-305_2.pdf	Underground Riser Structure Framing	3/17/2017	8/16/2017		3
	86184-TDA-305_3.pdf	Underground Riser Structure Framing	3/17/2017	8/16/2017		3
	86184-TDA-305_4.pdf	Underground Riser Structure Framing	6/5/2017	8/16/2017		3
	Carlsbad - 138kV A-Frame (S103) - SEALED Design Calculations	TRASMISSION STRUCTURE CALCULATION FOR NRG ENERGY	9/13/2017	9/13/2017		3
	Carlsbad - 230kV A-Frame (S100) - SEALED Design Calculations	TRASMISSION STRUCTURE CALCULATION FOR NRG ENERGY	9/13/2017	9/13/2017		3
	Carlsbad - Substation Equipment Stands - SEALED Design Calculations	TRASMISSION STRUCTURE CALCULATION FOR NRG ENERGY	9/13/2017	9/13/2017		3
	One-Line Diagrams:					
	86184-EE002	One Line Diagram - 230kV Relaying and Metering	4/7/2017	2/22/2018		1, 11
	86184-EE1002	One Line Diagram - 138kV Relaying and Metering	4/7/2017	2/22/2018		1, 11
	Three-Line Diagrams:					
	86184-EE610	Unit 6 - 230kV Three Line Diagram	4/7/2017	2/22/2018		1, 11
	86184-EE710	Unit 7 - 230kV Three Line Diagram	4/7/2017	2/22/2018		1, 11
	86184-EE810	Unit 8 - 230kV Three Line Diagram	4/7/2017	2/22/2018		1, 11
	86184-EE910_SHT 1	Unit 9 - 230kV Three Line Diagram	4/7/2017	2/22/2018		1, 11
	86184-EE910_SHT 2	Unit 9 - 230kV Three Line Diagram	4/14/2017	2/22/2018		1, 11
	86184-EE1010	Unit 10 - 138kV Three Line Diagram	4/7/2017	2/22/2018		1, 11
	Protection and Control					
	86184-EW6ESS-520 SH1	230kV YARD SCHEMATIC 50BF6	4/7/2017	2/22/2018		1
	86184-EW6ESS-520 SH2	230kV YARD SCHEMATIC 50BF6 AND 86BF6	4/7/2017	2/22/2018		1
	86184-EW6ESS-521 SH1	230kV CIRCUIT BREAKER HVCB6 NAMEPLATES	12/20/2017	12/20/2017		1
	86184-EW6ESS-521 SH2	230kV CIRCUIT BREAKER HVCB6 DC SCHEMATIC	4/7/2017	2/22/2018		1
	86184-EW6ESS-521 SH3	230kV CIRCUIT BREAKER HVCB6 ALARMS AND AUXILIARY CONTACTS	12/20/2017	2/22/2018		1
	86184-EW6ESS-522	230kV UNIT 6 DISCONNECT SWITCH AUXILIARY CONTACTS	12/20/2017	2/22/2018		1
	86184-EW7ESS-520 SH1	230kV YARD SCHEMATIC 50BF7	4/7/2017	2/22/2018		1
	86184-EW7ESS-520 SH2	230kV YARD SCHEMATIC 50BF7 AND 86BF7	4/7/2017	2/22/2018		1
	86184-EW7ESS-521 SH1	230kV CIRCUIT BREAKER HVCB7 NAMEPLATES	12/20/2017	12/20/2017		1
	86184-EW7ESS-521 SH2	230kV CIRCUIT BREAKER HVCB7 DC SCHEMATIC	4/7/2017	2/22/2018		1
	86184-EW7ESS-521 SH3	230kV CIRCUIT BREAKER HVCB7 ALARMS AND AUXILIARY CONTACTS	12/20/2017	2/22/2018		1
	86184-EW7ESS-522	230kV UNIT 7 DISCONNECT SWITCH AUXILIARY CONTACTS	12/20/2017	2/22/2018		1
	86184-EW8ESS-520 SH1	230kV YARD SCHEMATIC 50BF8	4/7/2017	2/22/2018		1
	86184-EW8ESS-520 SH2	230kV YARD SCHEMATIC 50BF8 AND 86BF8	4/7/2017	2/22/2018		1
	86184-EW8ESS-521 SH1	230kV CIRCUIT BREAKER HVCB8 NAMEPLATES	12/20/2017	12/20/2017		1
	86184-EW8ESS-521 SH2	230kV CIRCUIT BREAKER HVCB8 DC SCHEMATIC	4/7/2017	2/22/2018		1
	86184-EW8ESS-521 SH3	230kV CIRCUIT BREAKER HVCB8 ALARMS AND AUXILIARY CONTACTS	12/20/2017	2/22/2018		1
	86184-EW8ESS-522	230kV UNIT 8 DISCONNECT SWITCH AUXILIARY CONTACTS	12/20/2017	2/22/2018		1
	86184-EW9ESS-520 SH1	230kV YARD SCHEMATIC 50BF9	4/7/2017	2/22/2018		1
	86184-EW9ESS-520 SH2	230kV YARD SCHEMATIC 50BF9 AND 86BF9	4/7/2017	2/22/2018		1
	86184-EW9ESS-521 SH1	230kV CIRCUIT BREAKER HVCB9 NAMEPLATES	12/20/2017	12/20/2017		1
	86184-EW9ESS-521 SH2	230kV CIRCUIT BREAKER HVCB9 DC SCHEMATIC	4/7/2017	2/22/2018		1
	86184-EW9ESS-521 SH3	230kV CIRCUIT BREAKER HVCB9 ALARMS AND AUXILIARY CONTACTS	12/20/2017	2/22/2018		1
	86184-EW9ESS-522	230kV UNIT 9 DISCONNECT SWITCH AUXILIARY CONTACTS	12/20/2017	2/22/2018		1

CARLSBAD POWER CONSTRUCTORS

BURNS McDONNELL | PSC Primoris Services Corporation ARB Industrial

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TSE-1: Master Drawing/Specification List and Schedule

Carlsbad Energy Center, LLC

Carlsbad Energy Center

Project No: 86184

Item No.	Drawing Number	Drawing Title	Submittal Schedule Initial	Final	CCR	Major Equipment
	86184-EW9ESS-524 SH1	230kV YARD SCHEMATIC PRIMARY LINE PROTECTION	4/7/2017	2/22/2018		1
	86184-EW9ESS-524 SH2	230kV YARD SCHEMATIC PRIMARY LINE PROTECTION	4/7/2017	2/22/2018		1
	86184-EW9ESS-525 SH1	230kV YARD SCHEMATIC BACKUP LINE PROTECTION	4/7/2017	12/20/2017		1
	86184-EW9ESS-525 SH2	230kV YARD SCHEMATIC BACKUP LINE PROTECTION	4/7/2017	12/20/2017		1
	86184-EW9ESS-527	230kV YARD SCHEMATIC ETHERNET SWITCH	4/7/2017	2/22/2018		1
	86184-EW10ESS-520 SH1	138kV YARD SCHEMATIC 50BF10	4/7/2017	2/22/2018		1
	86184-EW10ESS-520 SH2	138kV YARD SCHEMATIC 50BF10 AND 86BF10	4/7/2017	2/22/2018		1
	86184-EW10ESS-521 SH1	138kV CIRCUIT BREAKER HVCB10 NAMEPLATES	12/20/2017	12/20/2017		1
	86184-EW10ESS-521 SH2	138kV CIRCUIT BREAKER HVCB10 DC SCHEMATIC	4/7/2017	2/22/2018		1
	86184-EW10ESS-521 SH3	138kV CIRCUIT BREAKER HVCB10 ALARMS AND AUXILIARY CONTACTS	12/20/2017	2/22/2018		1
	86184-EW10ESS-522	138kV UNIT 10 DISCONNECT SWITCH AUXILIARY CONTACTS	12/20/2017	2/22/2018		1
	86184-EW10ESS-524 SH1	138kV YARD SCHEMATIC PRIMARY LINE PROTECTION	4/7/2017	2/22/2018		1
	86184-EW10ESS-524 SH2	138kV YARD SCHEMATIC PRIMARY LINE PROTECTION	4/7/2017	2/22/2018		1
	86184-EW10ESS-525 SH1	138kV YARD SCHEMATIC BACKUP LINE PROTECTION	4/7/2017	2/22/2018		1
	86184-EW10ESS-525 SH2	138kV YARD SCHEMATIC BACKUP LINE PROTECTION	4/7/2017	2/22/2018		1
	86184-EW10ESS-527	138kV YARD SCHEMATIC ETHERNET SWITCH	4/7/2017	2/22/2018		1
	Encina Substation					
	86184-EA230-S-661	Foundation Plan 230kV Switchyard	10/17/2017	10/17/2017		3
	86184-EA230-S-719.1	Foundation Details - Alternate URS & CCVT	10/17/2017	10/17/2017		3
	86184-EA230-S-719	Foundation Details - URS & CCVT	10/17/2017	10/17/2017		3
	86184-EA230-S-20.pdf	Structural Drawing Reference List	11/10/2017	11/10/2017		3
	86184-EA230-S-50.pdf	Structural Bill of Material	11/10/2017	11/10/2017		3
	86184-EA230-S-500.pdf	Ultimate Arrangement	11/10/2017	11/10/2017		3
	86184-EA230-S-501.pdf	General Arrangement	11/10/2017	11/10/2017		3
	86184-EA230-S-503.pdf	Plan View 230kV Bays 3 & 4	11/10/2017	11/10/2017		3
	86184-EA230-S-508.pdf	Elevation 4 & 8	11/10/2017	11/10/2017		3
	86184-EA230-S-511.pdf	Elevations A.1 & A.3	11/10/2017	11/10/2017		3
	86184-EA230-S-522.pdf	230kV Connection Details	11/10/2017	11/10/2017		3
	86184-EA230-S-645.pdf	230kV Bays 3 & 4 Power & Control Duct Layout	11/10/2017	11/10/2017		3
	86184-EA230-S-648.pdf	Power & control Duct Details	11/10/2017	11/10/2017		3
	86184-EA230-S-654.pdf	Grounding Plan 230kV Bays 3 & 4	11/10/2017	11/10/2017		3
	86184-EA230-S-655.03.pdf	Grounding Details	11/10/2017	11/10/2017		3
	Protection and Control					
	C402-Technical-Specs.pdf	Contract C402 - Underground Transmission Line Duct Bank Technical Specifications	8/9/2017	8/28/2017		3
	C403 Cable Technical Specs.pdf	Contract C403 - Underground Furnish & Erect Cable Technical Specifications	7/28/2017	7/28/2017		3
	86184.C203&C501-Structural Specifications.pdf	SUBSTATION EQUIPMENT AND MATERIALS & SUBSTATION AND TRANSMISSION LINE CONSTRUCTION STRUCTURAL SPECIFICATIONS	7/28/2017	7/28/2017		7
	86184.C203&C501-Electrical Specifications.pdf	SUBSTATION MATERIALS & SUBSTATION CONSTRUCTION ELECTRICAL SPECIFICATIONS	7/28/2017	7/28/2017		7
	86184.C203,C303,&C501-T-Line Specifications.pdf	Specifications for Transmission Line Material Procurement and Construction	7/28/2017	7/28/2017		10

Construction Specifications

Civil

Spec Section	Specification Description
312000	Site Preparation and Earthwork
015520	Permanent Right of Way Access Roads
311000	Right of Way Clearing
312300	Excavation and Backfill
329100	Right of Way Restoration
330526	Signs and Markers

Electrical

Spec Section	Specification Description
260001	Cable Installation
260516	Underground Transmission Cable & Accessories
260526	Grounding
260533	Ducts and Accessories
260544	Duct Banks
260544.1	Proofing Log

Structural

Spec Section	Specification Description
033501	Duct Bank Concrete
033501	Fluidized Thermal Backfill
032000	Concrete and Reinforcement
316640	Direct Embedded Foundations
337116.23	Tubular Steel
03500	Drilled Shaft Foundations
3000	Steel Structures

HV Electrical

Spec Section	Specification Description
5000	Wire, Cables and Accessories
337124	Ceramic Insulators
337126.16	Transformers
337126.23	Current Transformers
337519.13	and Data Sheet

CARLSBAD POWER CONSTRUCTORS

BURNS McDONNELL | PSC Primoris Services Corporation ARB Industrial

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TSE-1: Master Drawing/Specification List and Schedule

Carlsbad Energy Center, LLC

Carlsbad Energy Center

Project No: 86184

Item No.	Drawing Number	Drawing Title	Submittal Schedule			Major Equipment
			Initial	Final	CCR	
	337123	Insulator Hardware		337539	Surge Arresters	
	337125	Nonceramic Insulators		337553	High Voltage Disconnect Switches	
	337126	Pole Top Assemblies		330570	Equipment	
	337130	OPGW Hardware		330870	Field Testing	
	337134	Overhead Ground Wire				
	337136.14	ACSR Conductor				
	337919	Grounding				
	338223	OPGW				

Major Structure and Equipment Grouping

1	Breakers
2	Step-up Transformer (See GEN-2 CGT Transformer Foundations and Connections)
3	Switchyard
4	Busses (No Busses Installed - Item 4 Does Not Apply Project)
5	Surge Arrestors (See GEN-2 CGT Transformer Foundations and Connections)
6	Disconnects and Wave-traps (See GEN-2 CGT Transformer Foundations and Connections)
7	Take off facilities
8	Electrical Control Building (See GEN-2 Balance of Plant PDC)
9	Switchyard Control Building (See GEN-2 Balance of Plant PDC)
10	Transmission Pole/Tower
11	Insulators and Conductors
12	Grounding System

ATTACHMENT M

GEN-3
PROOF OF PAYMENT TO DCBO
NOVEMBER 2018

December 7, 2018

Mr. Dale Rundquist
Compliance Project Manager
California Energy Commission
1516 Ninth Street, MS 2000
Sacramento, CA 95814-5512
Dale.rundquist@energy.ca.gov

Re: CEC Conditions of Certification GEN-3
Amended Carlsbad Energy Center Project

Dear Mr. Rundquist:

This letter is to notify you that the applicant has complied with the CEC Conditions of Certification for the month of November 2018. As of this date the applicant is current on their payments to WC^3.

Should you have any questions please feel free to contact us.

West Coast Code Consultants, Inc. (WC^3)

Sincerely,

Giyan Senaratne, S.E., P.E., LEED AP, CASp
Principal/CEO
Delegate Chief Building Official
Structural Engineer
ICBO/ICC/IRC Plans Examiner

Cc: Ralph.Wagner@nrg.com; Scott.Seipel@nrg.com

ATTACHMENT N

CIVIL-1, GEN-6
LIST OF DCBO APPROVALS and
MECH-1
CBO INSPECTION APPROVALS

NOVEMBER 2018

LIST OF DCBO PLAN APPROVALS AND INSPECTIONS NOVEMBER 2018

CBO Package No.	Date Submitted	Description	COC
GEN-ELEC-01-20	11-26-18	Lightning Protection	ELEC-1
CECP-STRUC-01C	11-26-18	Engineer's Signed Statement – Field Erected Tanks	STRUC-1

MCR November 2018

161-18
2018-11-14
Site Wide - Hydrant and Standpipe Flush per NFPA 24
Approved
Site Wide - Hydrant Flush per NFPA 24As Requested WC-3 witnessed the flushing of on site potable fire protection hydrants and reclaimed water hydrant. Pre-flush was conducted previously all hydrant was screened and visually reviewed for debris, all hydrants are approved.WC-3 was joined by CPC Leads as well as craft workers and Commissioning and NRG field managers. All approved without issue.
Steve Hermsmeyer

161-17
2018-11-01
Final Fire Alarm Inspection - Witness and Installation
Approved
As requested WC-3 witnessed and observed initiation of Fire Alarm signals at CT enclosures #6, #7, #8, #9 & #10. All alarms were displayed on the FACP located in the Administration Building Control Room as required. Final Fire Alarm Inspection - Witness and InstallationWC-3 was joined by NRG managers, Wilson Fire (subcontractor), and CPC personnel all approved without issue.
Steve Herm

ATTACHMENT O

WORKER SAFETY-3
CONSTRUCTION SAFETY SUPERVISOR
MONTHLY SAFETY REPORT
NOVEMBER 2018

CARLSBAD POWER CONSTRUCTORS

BURNS McDONNELL P=C

CPC

Monthly Safety Report

nrg

December 7, 2018

To Whom It May Concern

This letter will serve as a summary of safety related activities for the month of November.

During the month of November there have been a total of 24 employees trained for the CEC Project. The personnel trained for the project consisted of employees from CPC, NRG, GE, etc.

There have been 0 incidents for the month of November.

Best Regards,

Eric Garner
CECP Project Safety Manager

ATTACHMENT P

CIVIL-3 AND STRUC-2
NON-CONFORMANCE REPORT LOG

CONFORMANCE REPORTS

Date Issued	Contractor-NCR #	Location	Reason	Open/Closed
6/19/2017	CPC-001	Auxiliary Transformer Fire Walls	Early removal of wall form structural components	**Closed 8/8/2017**
10/19/2017	CPC-002	Thermal Concrete Properties Duct Bank	Concrete did not meet specification thermal properites.	**Closed 1/26/2018**
11/3/2017	CPC-003	Thermal Concrete Properties Slurry	Concrete did not meet specification thermal properites.	**Closed 1/26/2018**
11/9/2017	CPC-004	Thermal Concrete Slurry Properties	Slurry thermal resistivity values did not meet the specifications.	**Closed 1/26/2018**
11/9/2017	CPC-005	Thermal Concrete Slurry Properties	Slurry thermal resistivity values did not meet the specifications.	**Closed 1/26/2018**

Carlsbad Energy Center LLC
4600 Carlsbad Blvd
Carlsbad, CA 92008
Phone: 760-710-3970

December 14, 2018

Anwar Ali, Ph.D.
Compliance Project Manager
Carlsbad Energy Center Project (07-AFC-06C)
California Energy Commission
1516 Ninth Street (MS-2000)
Sacramento, CA 95814

RE: CARLSBAD ENERGY CENTER PROJECT
DOCKET NO. 07-AFC-06C
CONDITION OF CERTIFICATION, COMPLIANCE-6
NOVEMBER 2018, MONTHLY COMPLIANCE REPORT
SIGNED WEAP TRAINING FORMS

Dear Dr. Ali:

Carlsbad Energy Center LLC ("Project Owner") submits the November 2018 Monthly Compliance Report (MCR) Attachment E, signed Worker Environmental Awareness Training (WEAP) forms, in compliance with the AFC Docket No. 07-AFC-06C, Conditions of Certification (COCs) COMPLIANCE-6 for the Carlsbad Energy Center Project (CECP) located at 4600 Carlsbad Boulevard, Carlsbad, California.

If you have any questions or comments, please do not hesitate to contact me at (760) 710-2156.

Sincerely,

George L. Piantka, PE
Sr. Director, Regulatory Environmental Services
NRG West Region

Attached: Carlsbad Energy Center Project (07-AFC-06C), California Energy Commission, Monthly Compliance Report, Attachment E (ONLY) November 2018

Cc: File

ATTACHMENT E

CUL-5 AND PAL-5
CERTIFICATION OF COMPLETION,
WORKER ENVIORNMENTAL AWARENESS PROGRAM,
NOVEMBER 2018

WEAP Summary Table through September 2017 Amended Carlsbad Energy Center Project	
Month Training Conducted	**Monthly Total of WEAP Attendees***
December 2014	21
January 2015	16
February 2015	7
March 2015	7
April 2015	1
May 2015	11
June 2015	5
July 2015	3
August 2015	30
September 2015	14
October 2015	3
November 2015	0
December 2015	3
January 2016	1
February 2016	49
March 2016	42
April 2016	5
May 2016	2
June 2016	0
July 2016	0
August 2016	5
September 2016	0
October 2016	0
November 2016	0
December 2016	0
January 2017	1
February 2017	114
March 2017	158
April 2017	85
May 2017	52
June 2017	30
July 2017	71
August 2017	77
September	93
Total	**906**

*Attendance is based on training sign-in sheets

Continued
WEAP Summary Table through November 2018
Amended Carlsbad Energy Center Project

Month Training Conducted	Monthly Total of WEAP Attendees*
October 2017	104
November 2017	167
December 2017	136
January 2018	112
February 2018	89
March 2018	91
April 2018	70
May 2018	58
June 2018	13
July 2018	28
August 2018	47
September 2018	41
October 2018	53
November 2018	24
Total	**1,939**

*Attendance is based on training sign-in sheets

Certification of Completion
Worker Environmental Awareness Program
Carlsbad Energy Center Project (07-AFC-6)

This is to certify these individuals have completed a mandatory California Energy Commission-approved Worker Environmental Awareness Program (WEAP). The WEAP includes pertinent information on cultural, paleontological, and biological resources for all personnel (that is, construction supervisors, crews, and plant operators) working on site or at related facilities. By signing below, the participant indicates that he/she understands and shall abide by the guidelines set forth in the program materials. Include this completed form in the Monthly Compliance Report.

No.	Employee Name	Title/Company	Signature
1.	DUANE SIDEWER	OPERATOR	Duane Sidener
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Cultural Trainer: Eric GARCIA Signature: Eric Garcia Date: 11/1/18
PaleoTrainer: _____ Signature: _____ Date: ___/___/____
Biological Trainer: _____ Signature: _____ Date: ___/___/____

Certification of Completion
Worker Environmental Awareness Program
Carlsbad Energy Center Project (07-AFC-6)

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No.	Employee Name	Title/Company	Signature
1.	CHUCK SCHMURBEL	ELECT/CARL'S Eng	Charles E Schmurbel
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Cultural Trainer: ERIC GARNER Signature: Eric Garner Date: 11/12/18
PaleoTrainer: _____ Signature: _____ Date: ___/___/____
Biological Trainer: _____ Signature: _____ Date: ___/___/____

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Worker Environmental Awareness Program
Carlsbad Energy Center Project (07-AFC-6)

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No.	Employee Name	Title/Company	Signature
1.	Alejandro	Hardy & Harper	
2.	Jesus A Garcia	Hardy & Harper inc	Jesus A Garcia
3.	David Cano Huitron	Hardy & Harper	David Cano H.
4.	LARRY VALDEZ	HArdy HArper	Larry Valdez
5.	Nestor Garcia	HArdy & Harper	
6.	José ABEL ORTEGA	HARDY & HARPER	J. Abel Ortega
7.	Edward Lemus	Hardy & Harper	Edward
8.	Jeff Loving	Chief Eng / UEC	
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Cultural Trainer: Shawna Palmer Signature: _____ Date: 11/13/18
PaleoTrainer: Shawna Palmer Signature: _____ Date: 11/13/18
Biological Trainer: Shawna Palmer Signature: _____ Date: 11/13/18

Certification of Completion
Worker Environmental Awareness Program
Carlsbad Energy Center Project (07-AFC-6)

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No.	Employee Name	Title/Company	Signature
1.	CHAD SHORE	BURNS & MCDONNELL	
2.	Jorge Kesic	Burns & McDonnell	
3.	BRIAN WILSON	UEC, LLC	
4.	Jessica Greathouse	Burns & McDonnell	
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Cultural Trainer: Eric Gibbens Signature: _____ Date: 11/14/18
PaleoTrainer: _____ Signature: _____ Date: ___/___/____
Biological Trainer: _____ Signature: _____ Date: ___/___/____

Certification of Completion
Worker Environmental Awareness Program
Carlsbad Energy Center Project (07-AFC-6)

This is to certify these individuals have completed a mandatory California Energy Commission-approved Worker Environmental Awareness Program (WEAP). The WEAP includes pertinent information on cultural, paleontological, and biological resources for all personnel (that is, construction supervisors, crews, and plant operators) working on site or at related facilities. By signing below, the participant indicates that he/she understands and shall abide by the guidelines set forth in the program materials. Include this completed form in the Monthly Compliance Report.

No.	Employee Name	Title/Company	Signature
1.	Ian Galloway	Painter, CorRay	Ian Galloway
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Cultural Trainer: Shawn Palmer Signature: _____ Date: 11/19/18
PaleoTrainer: Shawn Palmer Signature: _____ Date: 11/19/18
Biological Trainer: Shawn Palmer Signature: _____ Date: 11/19/18

Certification of Completion
Worker Environmental Awareness Program
Carlsbad Energy Center Project (07-AFC-6)

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No.	Employee Name	Title/Company	Signature
1.	Ralph Gonzalez	operator	
2.	Cameron Jones	operator	
3.	Jessie Coria	operator	
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Cultural Trainer: [illegible] Signature: [illegible] Date: 11/20/18
PaleoTrainer: [illegible] Signature: [illegible] Date: 11/20/18
Biological Trainer: [illegible] Signature: [illegible] Date: 11/20/18

Certification of Completion
Worker Environmental Awareness Program
Carlsbad Energy Center Project (07-AFC-6)

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No.	Employee Name	Title/Company	Signature
1.	Javier Blancas	Howard Hughes / operator	
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Cultural Trainer: [illegible] Signature: [signature] Date: 11/21/18
PaleoTrainer: [illegible] Signature: [signature] Date: 11/21/18
Biological Trainer: [illegible] Signature: [signature] Date: 11/21/18

Certification of Completion
Worker Environmental Awareness Program
Carlsbad Energy Center Project (07-AFC-6)

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No.	Employee Name	Title/Company	Signature
1.	Aaron Doyle	NorthPoint	ADoyle
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Cultural Trainer: [signature] Signature: [signature] Date: 11/26/18
PaleoTrainer: [signature] Signature: [signature] Date: 11/26/18
Biological Trainer: [signature] Signature: [signature] Date: 11/26/18

Certification of Completion
Worker Environmental Awareness Program
Carlsbad Energy Center Project (07-AFC-6)

This is to certify these individuals have completed a mandatory California Energy Commission-approved Worker Environmental Awareness Program (WEAP). The WEAP includes pertinent information on cultural, paleontological, and biological resources for all personnel (that is, construction supervisors, crews, and plant operators) working on site or at related facilities. By signing below, the participant indicates that he/she understands and shall abide by the guidelines set forth in the program materials. Include this completed form in the Monthly Compliance Report.

No.	Employee Name	Title/Company	Signature
1.	~~AE Dike Co~~ Richard Sanchez	Operator	
2.	~~AE Dike Co~~	~~LABOR~~	~~[illegible]~~
3.	~~AE Dike Co~~	~~operator~~	~~[illegible]~~
4.			
5.			
6.	Jose Luis Fernandez	LABER	
7.	Zachary Harrold	operater/	
8.	Richard Sanchez	Operator	
9.	Kent Arthur	OPERATOR/FOREMAN	Kent Arthur
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Cultural Trainer: [illegible] Signature: [illegible] Date: 11/24/18
PaleoTrainer: [illegible] Signature: [illegible] Date: 11/27/18
Biological Trainer: [illegible] Signature: [illegible] Date: 11/27/18