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05-AFC-2C

# COM-7: ANNUAL COMPLIANCE REPORT # 6

January 1, 2018 – December 31, 3018

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# **SECTION ONE | INTRODUCTION**

On February 27, 2008, the California Energy Commission (CEC) issued a license for the construction and operation of the Walnut Creek Energy Park (WCEP), a nominal 500 megawatt (MW) simple-cycle, natural gas power plant, located in the City of Industry, California and Construction began on June 1, 2011. Construction was completed and commercial operation started April 30, 2013.

This third Annual Compliance Report has been prepared pursuant to Condition of Certification COM-7, which requires Walnut Creek Energy, LLC (WCE) to prepare and submit a report that documents compliance activities related to the operation of the Walnut Creek Energy Park. This report covers the reporting period of January 01, 2018 through December 31, 2018. This report addresses the specific compliance information requirements as set forth in Condition of Certification COM-7. It also provides information related to other Conditions of Certification within the Final Decision that have annual reporting requirements, including COM-5, AQ-16, HAZ-1, VIS-1, VIS-4, WASTE-5, WATER QUALITY AND SOILS-1, WATER-RES-1, WATER RES-2, TLSN-2, TLSN-4, COM-12.

### **SECTION TWO | COM-7 REPORTING REQUIREMENTS**

A list of the items required by COM-7 to be addressed in the Annual Compliance Report is provided below:

- 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 Annual Compliance Report. Each of these items must be identified in the transmittal letter and submitted as attachments to the Annual Compliance Report.
- 4. A cumulative listing of all post-certification changes approved by the Energy Commission or cleared by 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 listing of filings submitted to, or permits issued by, other governmental agencies during the year.
- 7. A projection of project compliance activities scheduled during the next year.
- 8. A listing of the year's additions to the on-site compliance file.
- 9. An evaluation of the on-site contingency plan for unplanned facility closure, including any suggestions necessary for bringing the plan up to date [see Compliance Conditions for Facility Closure addressed later in this section].
- 10. A listing of complaints, notices of violation, official warnings, and citations received during the year, a description of the resolution of any resolved matters, and the status of any unresolved matters.

Information for each of these requirements and accompanying documentation is contained in Section Three of this report and in the attachments provided with this report.

### **SECTION THREE | ANNUAL COMPLIANCE REQUIREMENTS**

### 3.1 Compliance Matrix (COM-5)

Per COC COM-5, an updated compliance matrix showing status of all conditions of certification is provided in Attachment A. Fully satisfied conditions that have been previously reported as complete are not shown.

### 3.2 Summary of Operating Status

A summary of the WCEP operations during the reporting period is provided in Table 3.2-1. The table shows the total number of hours the gas turbines operated each month of the reporting period. It also includes the total megawatt hours (MWH) produced each month by each unit. There were no significant changes to facility operations during the reporting period.

Table 3.2-1: Plant Operations Summary January 1, 2018 through December 31, 2018

	UNI	T 1	UNI	T 2	UNI	T 3	UNI	T 4	UNI	T 5
	Service Hours	Gross Output (MWh)								
January	46	3,579	39	3,007	44	3,095	67	5,001	78	5,412
February	60	4,180	29	2,110	38	2,439	75	4,806	117	7,627
March	42	3,110	27	1,933	41	2,964	92	6,798	104	7,341
April	89	6,055	95	6,166	84	5,694	112	7,575	72	4,509
May	85	6,293	70	4,938	67	4,647	51	3,619	68	4,572
June	45	3,343	35	2,690	41	3,074	38	2,805	35	2,475
July	305	17,173	291	17,062	292	17,078	309	17,155	333	19,577
August	161	10,915	153	10,216	170	11,755	164	10,679	162	10,801
September	58	4,699	60	4,428	39	2,967	43	3,248	60	4,291
October	156	12,771	91	7,356	139	10,907	131	10,099	143	11,129
November	145	10,606	40	2,998	142	10,013	123	8,103	131	8,761
December	42	3,354	35	2,715	33	2,417	40	3,196	49	3,806
Total	1,236	86,075	964	65,617	1,131	77,051	1,245	83,084	1,351	90,302

### 3.3 Annual Compliance Reporting Required by Specific Conditions

### 3.3.1. Documentation of RECLAIM Trading Credits (AQ-16)

Per COC AQ-16, evidence demonstrating that Walnut Creek Energy, LLC held sufficient RECLAIM Trading Credits (RTCs) for the reporting period is provided in Attachment B.

### 3.3.2. List of Hazardous Materials On Site (HAZ-1)

Per COC HAZ-1, a list of updated hazardous materials contained at the facility is provided in Attachment C.

#### 3.3.3. Surface Treatment Maintenance Status Report (VIS-1)

COC VIS-1 requires a status report regarding surface treatment maintenance that addresses the following items:

- Condition of surfaces of all structures and buildings at the end of the reporting period;
- Maintenance activities that occurred during the reporting period; and
- Schedule of maintenance activities for the next reporting period.

No surface treatment was required during the reporting period and no surface treatment activities are planned for 2019.

### 3.3.4. Cooling Tower Visible Plumes (VIS-4)

Per COC VIS-4, written documentation demonstrating that the cooling tower has consistently been operated within the design parameters specified in VIS-4 is provided in Attachment D.

#### 3.3.5. Waste Management Methods (WASTE-5)

COC WASTE-5 requires documentation of waste management methods used during the reporting period and a comparison to methods proposed in the original Operations Waste Management Plan. All waste management methods used during the reporting period were consistent with the methods specified in the updated Operations Waste Management Plan which is provided in Attachment E.

#### 3.3.6. Adequacy of Best Management Practices (WATER QUALITY AND SOILS-1)

COC WATER QUALITY AND SOILS-1 requires a summary of monitoring and maintenance activities demonstrating adequacy of Best Management Practices (BMPs) during the reporting period. The WCEP Construction Stormwater General Permit Notice of Termination (NOT) was filed and approved by the Los Angeles Regional Water Quality Control Board on December 05, 2013. The WCEP is not required to have an Industrial Stormwater Pollution Prevention Plan (SWPPP), however, the facility was designed to minimize the risk of erosion and the site maintains good housekeeping processes pursuant to the requirements and recommendations included in the WCEP Standard Urban Storm Water Mitigation Plan (SUSMP) and Drainage, Erosion and Sedimentation Control Plan (DESCP) in order to reduce or eliminate pollutants in storm water discharges. All stormwater drain inlets within the project area were stenciled to prohibit illegal dumping, or pollutants, hazardous material and waste storage areas were kept orderly and free of debris and safe handling procedures and SPCC spill prevention and response requirements were followed. This is verified regularly by conducting visual inspections as part of routine on-site walks by WCEP personnel.

### 3.3.7. Water Use Summary Report (WATER RES-1)

COC WATER RES-1 requires a Water Use Summary Report and copies of meter records and documentation of servicing, testing, and calibration of metering devices. A summary of the WCEP water use during the reporting period is provided in Table 3.3.7-1. No service or calibrations were required on the WCEP water meters during the reporting period. Backflow Prevention Assembly Testing was conducted on December 03, 2018 and the reports are provided in Attachment F.

Table 3.3.7-1: Annual Water Use Summary January 1, 2018 through December 31, 2018

WCEP 2018	Sanitation (Gallons)	Landscaping (Gallons)	Nox Water (Gallons)	Cooling (Gallons)
January	6,944	7,480	569,225	1,630,640
February	6,272	7,480	628,055	791,384
March	6,944	5,984	645,042	1,775,752
April	6,720	6,732	834,119	1,937,320
May	6,944	10,472	671,496	2,241,008
June	6,720	9,724	396,079	963,424
July	6,944	10,472	2,426,578	4,102,780
August	6,944	14,960	1,538,556	9,180,204
September	6,720	13,464	574,052	3,935,976
October	6,944	12,716	1,504,065	10,286,496
November	6,720	8,976	1,185,247	4,136,440
December	6,944	2,992	454,010	644,776
Total:	81,760	111,452	11,426,523	41,626,200

### 3.3.8. Disruptions in Reclaimed Water Service (WATER RES-2)

COC WATER RES-2 requires documentation of interruptions of reclaimed water during the reporting period, including cause, associated volume of potable water used, and total annual use of potable water for the year and two years prior. There were no in disruptions in reclaimed water service during the reporting period.

### 3.3.9. Line-Related Complaints (TLSN-2)

COC TLSN-2 requires a summary of transmission line-related complaints. There were no transmission line-related complaints during the reporting period.

#### 3.3.10. Fire Prevention in Transmission Line Right-of-Way (TLSN-4)

COC TLSN-4 requires a summary of inspections and fire prevention activities carried out along the transmission line right-of-way. The transmission line right of way for the WCEP is located entirely within the project boundaries of the operating facility. Inspections of the transmission line facilities were conducted regularly as part of routine on-site walks by WCEP personnel. The

inspections did not identify any area along the right of way requiring modification or repair. No additional fire prevention activities were required beyond those incorporated into the facility's design and operations.

### 3.3.11. Review of On-Site Contingency Plan (COM-12)

Condition of Certification COM-12 required that the WCEP On-Site Contingency Plan be reviewed annually and updated if necessary. The plan was reviewed by WCEP Environmental Specialist, Heather MacLeod at the end of the reporting period and no revisions were necessary. The plan is provided in Attachment I.

### 3.4 Cumulative Listing of Post-Certification Changes

A cumulative list of post-certification changes is provided below.

- Amendment 1 (04/29/2009): Approval for relocation of several plant features within existing property boundary.
- Amendment 2 (02/18/2008): Approval for modification of transmission pole height.
- Amendment 3 (05/04/2011): Approval for modifications to various air quality conditions including AQ-SC7 and AQ-SC8. Revised compliance determinations were made for the following conditions: AQ-1, AQ-3, AQ-4, AQ-6, AQ-16, and AQ-19 (see Order No. 11-0504-2 for additional amendment details).
- Amendment 4 (09/08/2011): Approval of request to modify the construction laydown area.
- Amendment 5 (11/14/2011): Approval of request to modify the cooling tower.
- Amendment 6 (03/02/2012): Approval of requested modification to the gen-tie connection.
- Amendment 7 (07/11/2012): Approval of requested modification to include off-site industrial wastewater discharge connection.
- Amendment 8: Withdrawn; Amendment 9 submitted in its place.
- Amendment 9 (11/21/2012): Approval for modifications to various air quality conditions. Revised compliance determinations were made for the following conditions: AQ-SC7, AQ-1, AQ-3, AQ-11, AQ-13, AQ-14, AQ-16, and AQ-19. Conditions AQ-SC9 and AQ-17 were deleted for being redundant and outdated, respectively.
- Amendment 10 (12/10/2018): Approval for modifications to AQ-7 to clarify language pertaining to
  particulates, and to WS-5 to remove outdated language related to training security guards in the use
  of emergency equipment.

### 3.5 Delinquent Submittals

There were no delinquent submittals during the reporting period of January 1, 2018 through December 31, 2018.

# 3.6 Filings Made To or Permits Issued by Other Government Agencies

A list of filings made to other government agencies during the reporting period is presented in Table 3.6-

1. Copies of issued permits are included in Attachment G.

Table 3.6-1: Filings Made to Other Government Agencies During Reporting Period January 1, 2018 through December 31, 2018

Submittal	Agency	Submittal Date
Flow Monitoring Calibration Report	LACSD	12/04/2018
40 CFR Part 75 Quarterly EDR	EPA	1/18/2018 (Q4), 4/27/2018 (Q1), 7/23/2018 (Q2), 10/27/2017 (Q3), 1/18/19 (Q4)
Wastewater Quarterly Self Monitoring Report	LACSD	1/16/2018 (Q2), 4/4/2018 (Q1), 7/16/2018 (Q2), 09/25/2018 (Q3), 1/16/19 (Q4)
Wastewater Annual Surcharge Report	LACSD	8/10/2018
Backflow Inspection Reports	Rowland Water	12/21/2018
Title V Breakdown Report - 500-N	SCAQMD	7/18/2018, 9/14/2018
Title V Deviation Report - 500-N	SCAQMD	NA
Low Level Calibration Error Reports - CO	SCAQMD	10/11/2018
Annual NOx & CO Spiking RATA 10 Day Notification - Units 1-5	EPA/SCAQMD	3/23/2018, 4/16/2018, 5/4/2018
Final Report of Annual NOx & CO Spiking RATA - Units 1-5	EPA/SCAQMD	6/1/2018, 6/13/2018
Semi-Annual NOx RATA 10 Day Notification – Unit 3	SCAQMD	10/23/2018
Final Report of Semi-Annual NOx RATA - Unit 3	SCAQMD	12/12/2018
RECLAIM Monthly Emissions RTU Report	SCAQMD	1/12/2018, 2/12/2018, 3/6/2018, 4/1/2018, 5/8/2018, 6/7/2018, 7/12/2018, 8/8/2018, 9/7/2018, 10/12/2018, 11/7/2018, 12/13/2018
RECLAIM Quarterly Emissions RTU Report	SCAQMD	4/27/18 (Q1), 7/26/18 (Q2), 10/29/18 (Q3), 1/29/19 (Q4)
RECLAIM Quarterly Emissions Report (Hardcopy)	SCAQMD	4/27/18 (Q1), 7/27/18 (Q2), 10/26/18 (Q3)
RECLAIM CERE (Correction to Electronically Reported Emissions)	SCAQMD	NA
Title V Semi Annual Monitoring Report	SCAQMD	2/23/2018, 8/24/2018
Title V ACC Report	SCAQMD	2/16/2018

### 3.7 Scheduled Compliance Activities

A summary of the planned compliance activities over the next year is presented in Attachment H.

### 3.8 Additions to the On-Site Compliance File

All compliance submittals made during the reporting period have been added to the Facility compliance files. The Compliance Matrix in Appendix A identifies the submittals added to the compliance files.

### 3.9 List of Complaints, Notices of Violation, Official Warnings, and Citations

There were no Complaints, Notices of Violation, Official Warnings or Citations received in January 1, 2018 through December 31, 2018.

# **Attachment A**

Compliance Matrix (COM-5)

**Compliance Matrix Based on CEC 2008 Final Decision and Amendments** 

Color code key:

Pre-Construction (PC)

Construction (CONS)

Commissioning (COMM)

Operations (OPS)

Pending CEC Approval

Approved

Cond. #	Phase	Description of Condition of Certification	Verification Requirement	Submittal Deadline to CEC	Projected Completion Date	Status/ Comments
AQ-01a	OPS	The project owner shall limit the emissions from each gas fired combustion turbine train exhaust stacks as follows:  Contaminant Emissions Limit: PM10 2,778 2,592 lbs in any one month, CO 6,532-lbs in any one month, SOx 281 lbs in any one month, VOC 1,106 1,035 lbs in any one month. For the purpose of this condition, the limit(s) shall be based on the emissions from a single exhaust stack. During commissioning, CO emissions-shall-not exceed 7,441 lbs/mo and the VOC emissions shall not exceed 1,141 1,043 lbs in any one month. The project owner shall calculate the emission limit(s) by using the monthly fuel use data and the following emission factors: PM10: 7.04 lb/mmscf and VOC: 2.73 lb/mmscf. [Note to reader: these edits included per CEC-Approved Amendment dated 5/4/2011]	Submit all emission calculations, fuel use, CEM records and a summary demonstrating compliance of with all emission limits stated in this Condition for approval to the CPM on a quarterly basis in the quarterly emissions report (AQ-SC10). [Note to reader: these edits included per CEC-Approved Amendment dated 5/4/2011]	Include in QOR	4/30/2019	Q1 QOR Submitted 4/27/2018 Q2 QOR Submitted 7/27/2018 Q3 QOR Submitted 10/29/2018 Q4 QOR Submitted 1/30/2019
AQ-01b	OPS	The project owner shall limit emissions from the facility as follows: Contaminant Emissions Limit: PM2.5 Less than 60.89 TONS in ANY ONE YEAR, CO Less than or equal to 112.96 TONS in ANY ONE YEAR. For the purpose of this condition, the PM emission limit shall be defined as particulate matter with aerodynamic diameter of 2.5 microns are less. The CO emission limit of 112.96 tons per year in this condition shall only apply during non-commissioning years. The total annual CO emissions during the commissioning year shall not exceed 134.6 tons per year. The project owner shall calculate the monthly emissions for PM2.5 and CO using the equation below and the following emission factors: PM2.5: 7.04 lbs/mmscf or an AQMD approved factor based on compliance test data. If any valid source test performed after January 1, 2013 shows a higher PM2.5 emission rate than the factor in this condition, then those test results shall be used to calculate emissions from the date of the test forward. [Note to reader: these edits included per CEC-Approved Amendment Dated 12/18/2012.]	quarterly basis in the quarterly emissions report (AQ-SC10).	Include in QOR	4/30/2019	Q1 QOR Submitted 4/27/2018 Q2 QOR Submitted 7/27/2018 Q3 QOR Submitted 10/29/2018 Q4 QOR Submitted 1/30/2019 Condition language revised per CEC Amendment Order No. 12-1114-4
AQ-02	OPS	The project owner/operator shall not produce emissions of oxides of nitrogen from the facility, including the firewater pump and all five gas turbines combined, that exceed the RECLAIM Trading Credits holdings required in Condition of Certification AQ-16 within a calendar year.	Submit to the CPM no later than 60 days following the end of each calendar year, the SCAQMD required (via Rule 2004) Quarterly Certification of Emissions (or equivalent) for each quarter and the Annual Permit Emissions Program report (or equivalent) as prescribed by the SCAQMD Executive Officer.	No later than 60 days following the end of each calendar year.	Q1 2019	2012 Report Submitted 2/22/2013 2013 Report Submitted 2/27/2014 2014 Report Submitted 2/27/2015 2015 Report submitted 2/27/2016 2016 Report Submitted 2/24/2017 2017 Report Submitted 2/26/2018 2018 Report Submitted 2/26/2019
АQ-03а	сомм	The 2.5 ppm NOx emission limit, 2.0 ppm VOC emission limit and the 6.0 4.0 ppm CO emission limit shall not apply during turbine commissioning, start-up and shutdown. The commissioning period shall not exceed 134 operating hours per turbine from the initial start-up. Following commissioning, start-ups shall not exceed 60 minutes for each startup and the number of start-ups shall not exceed 10 minutes for each shutdown. Following commissioning, shutdowns shall not exceed 10 minutes for each shutdown. Following commissioning, The number of shutdowns startups shall not exceed ene two per day per turbine. Written records of commissioning, start-ups and shutdowns shall be kept and made available to District and submitted to the CPM for approval. See AQ-03 for more details.  Note to reader: those colits included per OEC-Approved Amendments dated \$1,67,011 and \$17,117,2011]	Provide the District and the CPM with the written notification of the initial start-up date no later than 60 days prior to the startup date.	60 days prior to startup date	Complete	Submitted to CEC and AQMD on 9/10/2012  Condition language revised per CEC Amendment Order No. 12-1114-4
AQ-03b	СОММ	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 this condition and the emission limits of Condition AQ-13. The monthly commissioning status report shall include criteria pollutant emission estimates for each commissioning activity and total commissioning emission estimates.	The monthly commissioning status report shall be submitted to the CPM until the report includes the completion of the initial commissioning activities. The project owner shall provide start-up and shutdown occurrence and duration data as part as part of the Quarterly Operation Report (AQ- SC10). The project owner shall make the site available for inspection of the commissioning and startup/shutdown records by representatives of the District, CARB and the Commission.	Include in MCR	Complete	Included as attachment to MCR January 2013 - April 2013  Commissioning period complete as of 4/30/2013

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**Compliance Matrix Based on CEC 2008 Final Decision and Amendments** 

Color code key:

Pre-Construction (PC)

Construction (CONS)

Commissioning (COMM)

Operations (OPS)

Pending CEC Approval

Approved

Cond. #	Phase	Description of Condition of Certification	Verification Requirement	Submittal Deadline to CEC	Projected Completion Date	Status/ Comments
AQ-04	OPS	The 2.5 ppm NOx emissions limit(s) are averaged over 60 minutes at 15 percent oxygen, dry basis. The 6.0 4.0 ppm CO emission limit(s) are averaged over 60 minutes at 15 percent oxygen, dry basis. The 2.0 ppm VOC emission limit(s) are averaged over 60 minutes at 15 percent oxygen, dry basis. The 5.0 ppm NH3 emission limit(s) are averaged over 60 minutes at 15 percent oxygen, dry basis. [Note to reader: these edits included per CEC-Approved Amendment dated 5/4/2011]	The project owner shall submit to the CPM for approval all emissions and emission calculations on a quarterly basis as part of the quarterly emissions report of Condition of Certification AQ-SC10.	Include in QOR	4/30/2019	Q1 QOR Submitted 4/27/2018 Q2 QOR Submitted 7/27/2018 Q3 QOR Submitted 10/29/2018 Q4 QOR Submitted 1/30/2019
AQ-05	OPS	The project owner may at no time purposefully exceed either the mass or concentration emission limits set forth in Conditions of Certification AQ-1, -2, -3 or -4.	The project owner shall submit to the CPM for approval all emissions and emission calculations on a quarterly basis as part of the quarterly emissions report of Condition of Certification AQ-SC10.	Include in QOR	4/30/2019	Q1 QOR Submitted 4/27/2018 Q2 QOR Submitted 7/27/2018 Q3 QOR Submitted 10/29/2018 Q4 QOR Submitted 1/30/2019
AQ-06	OPS	The project owner shall limit the fuel usage from each turbine to no more than 393 367 mmscf of pipeline quality natural gas in any one month. The operator shall install and maintain a fuel flow meter and recorder to accurately indicate and record the fuel usage being supplied to each turbine. [Note to reader: these edits included per CEC-Approved Amendment dated 5/4/2011]	The project owner shall submit to the CPM for approval all fuel usage records on a quarterly basis as part of the quarterly emissions report of Condition of Certification AQ-SC10.	Include in QOR	4/30/2019	Q1 QOR Submitted 4/27/2018 Q2 QOR Submitted 7/27/2018 Q3 QOR Submitted 10/29/2018 Q4 QOR Submitted 1/30/2019
AQ-07a	сомм	The project owner shall conduct an initial source test for NOx, CO, SOx, VOC, NH3 and PM10 and a periodic source test every three years thereafter for NOx, CO, SOx, VOC and PM10 of each gas turbine exhaust stack in accordance with the following requirements: See AQ-07 for required test methods, averaging time, test locations, testing conditions and other details.	Submit the proposed protocol for the initial source tests 45 days prior to the proposed source test date to both the District and CPM for approval.	60 days prior to proposed source test date	Complete	Submitted to CEC and AQMD 10/31/2012
АQ-07Ь	сомм	The project owner shall submit source test results to both the District and CPM. The project owner shall notify the District and CPM no later than 10 days prior to the proposed initial source test date and time.	Submit the source test results to the District and the CPM.	No later than 60 days following the source test date	Complete	Unit 1 Source Test Results submitted 3/22/2013 Unit 2 Source Test Results submitted 4/2/2013 Unit 3 Source Test Results submitted 4/20/2013 Unit 4 Source Test Results submitted 4/24/2013 Unit 5 Source Test Results submitted 5/10/2013
AQ-07c	OPS	The project owner shall conduct source testing for NOx, CO, Sox, VOC and PM10 for each gas turbine exhaust stack every 3 years after the initial source test.	Submit the source test protocol to the District and CPM for approval.	45 days prior to proposed source test date	Q1 2019	1/7/2016 2/1/2019
AQ-07d	OPS	The project owner shall conduct source testing for NOx, CO, Sox, VOC and PM10 for each gas turbine exhaust stack every 3 years after the initial source test.	Notify the District and CPM at least 10 days prior to the date and time of the source test.	10 days prior to proposed source test date	Q2 2019	3/18/2016
AQ-07e	OPS	The project owner shall conduct source testing for NOx, CO, Sox, VOC and PM10 for each gas turbine exhaust stack every 3 years after the initial source test.	Submit source test results to the District and CPM.	No later than 60 days following the source test date	Q3 & Q4 2019	5/27/2016

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**Compliance Matrix Based on CEC 2008 Final Decision and Amendments** 

Color code key:

Pre-Construction (PC)

Construction (CONS)

Commissioning (COMM)

Operations (OPS)

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Approved

Cond. #	Phase	Description of Condition of Certification	Verification Requirement	Submittal Deadline to CEC	Projected Completion Date	Status/ Comments
AQ-08a	OPS	The project owner shall conduct source testing of each gas turbine exhaust stack in accordance with the following requirements: See AQ-08 for details.  (Ammonia)	Submit the proposed protocol for the source tests to both the District and CPM for approval. The project owner shall notify the District and CPM no later than 7 days prior to the proposed source test date and time.	45 days prior to proposed source test date	Q1 2019	Protocol Notification Q1 2013 Submitted 10/31/2012 Q2 2013 Submitted 4/30/2013 Q3 2013 Submitted 8/9/2013 Q4 2013 Submitted 10/29/2013 Q2 2014 Submitted 3/17/2014 Q2 2015 Submitted 3/17/2016 Q2 2015 Submitted 2/26/2016 Q2 2017 Submitted 2/26/2016 Q2 2017 Submitted 2/24/2017 Q2 2018 Submitted 2/24/2017 Q2 2018 Submitted 2/22/2018  Date & Time Notification Q1 2013 Submitted 3/13/2013 Q2 2013 Submitted 4/30/2013 Q3 2013 Submitted 4/30/2013 Q4 2013 Submitted 12/04/2013 Q2 2014 Submitted 12/04/2013 Q2 2015 Submitted 3/13/2015 Q2 2016 Submitted 2/26/2016 Q2 2017 Submitted 4/12/2017 & 6/15/2017 Q2 2018 Submitted 4/16/2018 & 5/4/2018
AQ-08b	OPS	The project owner shall submit source test results to both the District and CPM.	Submit the source test results to the District and the CPM.	No later than 45 days following the source test date	Q2 2019	Q1 2013 Submitted March/April/May 2013 Q2 2013 Submitted 6/17/2013 & 7/24/2013 Q3 2013 Submitted 10/15/2013 Q4 2013 Submitted 1/15/2014 Q2 2014 Submitted 6/4/2014 Q2 2015 Submitted 7/1/2015 Q2 2016 Submitted 5/25/2016 Q2 2017 Submitted 5/8/2017 & 7/19/2017 Q2 2018 Submitted 5/18/2018 & 6/18/2018
AQ-09	сомм	The project owner shall install and maintain a CEMS in each exhaust stack of the combustion turbine trains to measure the following parameters: See AQ-09 for details related to CEMS performance criteria.	Notify the CPM of the completion of the certification process for the CEMS.	Within 30 days of CEMS certification	Complete	Notification provided 4/8/2013
AQ-10	OPS	The project owner shall keep records in a manner approved by the District for the following items:  Natural Gas use after CEMS certification  Natural Gas use during the commissioning period  Natural Gas use after the commissioning period and prior to the CEMS certification.	The project owner shall submit to the CPM for approval all fuel usage records on a quarterly basis as part of the quarterly emissions report of Condition of Certification AQ-SC10.	Include in QOR	4/30/2019	Q1 QOR Submitted 4/27/2018 Q2 QOR Submitted 7/27/2018 Q3 QOR Submitted 10/29/2018 Q4 QOR Submitted 1/30/2019
AQ-11a	OPS	The owner/operator shall determine the hourly ammonia slip emissions from each exhaust stack for each gas turbine train individually via the following formula: See AQ-11 for details.	Include ammonia slip concentrations averaged on an hourly basis calculated via both protocols the District Requirement protocol provided as part of the Quarterly Operational Report required in Condition of Certification AQ-SC10. [Note to reader: these edits included per CEC-Approved Amendment dated 12/18/2012]	Include in QOR	4/30/2019	Q1 QOR Submitted 4/27/2018 Q2 QOR Submitted 7/27/2018 Q3 QOR Submitted 10/29/2018 Q4 QOR Submitted 1/30/2019  Condition language revised per CEC Amendment Order No. 12-1114-4
AQ-11b	OPS	The project owner shall submit all calibration results performed to the CPM.	Submit the calibration results to the CPM. Submit to the CPM for approval a proposed correction factor to be used in the Energy-Commission formula at least once a year but not to exceed 180 days following the completion of the annual ammonia compliance source-test[Note to reader: these edits included per CEC-Approved Amendment dated 12/18/2012]	Within 60 days of the calibration date	4/30/2019	Q1 QOR Submitted 4/27/2018 Q2 QOR Submitted 7/27/2018 Q3 QOR Submitted 10/29/2018 Q4 QOR Submitted 1/30/2019  Condition language revised per CEC Amendment Order No. 12-1114-4

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AQ-11c	OPS	Exceedances of the ammonia limit shall be reported as prescribed herein. Chronic- exceedances of the ammonia slip limit shall be identified by the project owner and confirmed by the CPM within 60 days of the fourth quarter Quarterly Operational Report (AQ-SC10) being submitted to the CPM. [Note to reader: these edits included per CEC-Approved Amendment dated 12/18/2012]	If a chronic exceedance is identified and confirmed, the project owner shall work in conjunction with the CPM to develop a reasonable compliance plan to investigate and redress the chronic exceedance of the ammonia slip limit within 60 days of the above confirmation. Note to reader: these edits included per CEC-Approved Amendment dated 12/18/2012		As required	Requirement deleted when condition language revised per CEC Amendment Order No. 12-1114-4
AQ-12a	сомм	The operator shall install and maintain an ammonia injection flow meter and recorder to accurately indicate and record the ammonia injection flow rate being supplied to each turbine. The device or gauge shall be accurate to within plus or minus 5 percent and shall be calibrated once every twelve months. Continuously recording is defined for this condition as at least once every hour and is based on the average of the continuous monitoring for that hour.	Submit to the CPM a written statement by a California registered Professional Engineer stating that said engineer has reviewed the asbuilt-designs or inspected the identified equipment and certifies that the appropriate device has been installed and is functioning properly.	No less than 30 days after installation	Complete	Letter confirming installation submitted to CEC 9/17/2012 for Units 1-4 2/11/2013 for Unit 5  Letter confirming proper function submitted to CEC 1/11/2013 for Units 1 & 2 2/25/2013 for Units 3 & 4 3/14/2013 for Unit 5
AQ-12b	OPS	The project owner shall submit annual calibration results after successful completion.	Submit the required calibration results to the CPM.	Within 30 days of their successful completion	Q4 2019	2013 Reports Submitted 2/28/2014 2014 Reports Submitted 1/23/2015 2015 Reports Submitted 12/18/2015 2016 Reports Submitted 1/5/2017 2017 Reports Submitted 12/13/2017 2018 Reports Submitted 12/18/2018
AQ-13a	сомм	The operator shall install and maintain a temperature gauge and recorder to accurately indicate and record the temperature in the exhaust as the inlet of the SCR reactor. The gauge shall be accurate to within plus or minus 5 percent and shall be calibrated once every twelve months. Continuously recording is defined for this condition as at least once every hour and is based on the average of the continuous monitoring for that hour. Under any operating condition, including start-up, the maximum operating temperature shall not exceed 840 750° F. [Note to reader, these edits included per GEC-Approved Amendment dated 12/18/2012]	Submit to the CPM a written statement by a California registered Professional Engineer stating that said engineer has reviewed the asbuilt-designs or inspected the identified equipment and certifies that the appropriate device has been installed and is functioning properly.	No less than 30 days after installation	Complete	Letters confirming installation and proper function already submitted to CEC: Unit 1: 1/5/2013 Unit 2: 1/11/2013 Unit 3: 2/11/2013 Unit 4: 2/25/2013 Unit 5: 3/14/2013  Condition language revised per CEC Amendment Order No. 12-1114-4
AQ-13b	OPS	The project owner shall submit annual calibration results after successful completion.	Submit the annual calibration results to the CPM.	Within 30 days of their successful completion	Q4 2019	2013 Reports Submitted 2/28/2014 2014 Reports Submitted 1/23/2015 2015 Reports Submitted 12/18/2015 2016 Reports Submitted 1/5/2017 2017 Reports Submitted 12/13/2017 2018 Reports Submitted 12/18/2018
AQ-14a	сомм	The operator shall install and maintain a pressure gauge and recorder to accurately indicate and record the pressure differential across the SCR catalyst bed in inches of water column. The gauge shall be accurate to within plus or minus 5 percent and shall be calibrated once every twelve months. Continuously recording is defined for this condition as at least once every month and is based on the average of the continuous monitoring for that month. Under any operating condition, including start-up, the maximum operating pressure shall not exceed 12 7.6 inches of water. [Wote to reader: these edits included per CEC-Approved Amendment dated 12/18/2012]	Submit to the CPM a written statement by a California registered Professional Engineer stating that said engineer has reviewed the asbuilt-designs or inspected the identified equipment and certifies that the appropriate device has been installed and is functioning properly.	No less than 30 days after installation	Complete	Letters confirming installation and proper function already submitted to CEC:  Unit 1: 1/5/2013  Unit 2: 1/11/2013  Unit 3: 2/11/2013  Unit 4: 2/25/2013  Unit 5: 3/14/2013  Condition language revised per CEC Amendment Order No. 12-1114-4
AQ-14b	OPS	The project owner shall submit annual calibration results after successful completion.	Submit the annual calibration results to the CPM.	Within 30 days of their successful completion	Q4 2019	2013 Reports Submitted 2/28/2014 2014 Reports Submitted 1/23/2015 2015 Reports Submitted 12/18/2015 2016 Reports Submitted 1/5/2017 2017 Reports Submitted 12/13/2017 2018 Reports Submitted 12/18/2018

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AQ-15a	сомм	The project owner shall limit the operating time of the firewater pump to no more than 199.99 hours per year. The firewater pump shall be equipped with a non-resettable elapsed meter to accurately indicate the elapsed operating time of the engine. The firewater pump shall be equipped with a nonresettable totalizing fuel meter to accurately indicate the fuel usage of the engine. The firewater pump shall burn only diesel fuel that contains sulfur compounds less than or equal to 15 ppm by weight. The project owner shall operate and maintain the firewater pump according to the following requirements: See AQ-15 for details on additional conditions.	Submit to the CPM a written statement by a California registered Professional Engineer stating that said engineer has reviewed the asbuilt-designs or inspected the identified equipment and certifies that the appropriate device has been installed and is functioning properly.	No less than 30 days after installation	Complete	Letter confirming installation and proper function submitted 1/11/2013 (Fire Pump First Fire 12/13/2012)
AQ-15b	OPS	The project owner shall submit all dates of operation, elapsed time in hours, and the reason for each operation in the Quarterly Operations Report	Include the required information in the QOR.	Include in QOR	4/30/2019	Q1 QOR Submitted 4/27/2018 Q2 QOR Submitted 7/27/2018 Q3 QOR Submitted 10/29/2018 Q4 QOR Submitted 1/30/2019
AQ-16	OPS	The project equipment shall not be operated unless the project owner demonstrates to the SCAQMD Executive Officer that the facility holds sufficient RTCs to offset the prorated annual emissions increase for the first compliance year of operation. In addition, this equipment shall not beoperated unless the project owner demonstrates to the Executive Officer that, at the commencement of each compliance year after the first compliance year of operation, the facility hold sufficient RTCs in an amount equal to the annual emission increase. The project owner shall submit all such information to the CPM for approval. To comply with this condition, for each individual gas turbine, the project owner shall hold a minimum of 43,682 43,900 lbs/year of NOx RTCs and 2,280 lbs/year of SOx RTCs for the first year of operation (commissioning year) and 35,240 35,458 lbs/year of NOx RTCs and 2,280lbs/year of SOx RTCs thereafter (operating year). In addition, for the emergency fire pump the project owner shall hold a minimum of 218 lbs/year of NOx RTCs for both commissioning year and operating years. [Note to reader: these edits included per CEC-Approved Amendments dated 5/4/2011 and 12/18/2012]	The project owner shall submit all identified evidence demonstrating compliance to the CPM on an annual basis as part of the annual compliance report.	Include in ACR	2/28/2019	2018 ACR Due 2/28/2019
AQ-17a	сомм	The project owner shall conduct one source test over the lifetime of the project- for NOx and PM10 on each gas turbine exhaust stack in accordance with the following requirements: See AQ-17 for details. [Condition deleted per CEC- Approved Amendment Dated 12/18/2012]	Submit the proposed protocol for the initial source tests to both the AQMD and CPM for approval. The project owner shall notify the AQMD and CPM no later than 10 days prior to the proposed initial source test date and time.	At least 60 days prior to the proposed source test date	N/A	Condition Deleted per Amendment Order No. 12- 1114-4
AQ-17b	СОММ	The project owner shall submit source test results to both the AQMD and CPM.  Condition deleted per CEC-Approved Amendment Dated 12/18/2012]	Submit the source test results to the AQMD and CPM.	No later than 60 days following the source test date	N/A	Condition Deleted per Amendment Order No. 12- 1114-4

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AQ-18	OPS	The project owner shall limit the operating time for each combustion turbine to no more than 4,000 hours in any one year. For the purposes of this condition, one year shall be defined as any time that fuel is being combusted for any purpose in the combustion turbine train. One year is defined as a period of twelve (12) consecutive months determined on a rolling basis with a new twelve month period beginning on the first day of each calendar month. The operator shall install and maintain a non-resettable elapsed time meter to accurately indicate the elapsed operating time of the engine. The measuring device or gauge shall be accurate to plus or minus 5 percent. The measuring device or gauge shall be calibrated once every 12 months.	The project owner shall submit to the CPM for review a record of the time of use for all fuel use on a quarterly basis as part of the quarterly emissions report of Condition of Certification AQ-SC10.	Include in QOR	4/30/2019	Q1 QOR Submitted 4/27/2018 Q2 QOR Submitted 7/27/2018 Q3 QOR Submitted 10/29/2018 Q4 QOR Submitted 1/30/2019
AQ-19	CONS	The project owner shall not start operation of any equipment except emergency Internal combustion engine (ICE) device until both boiler units 3 and 4 currently located at AES Huntington Beach Generating Station have been retired and permits for boilers 3 and 4 have been surrendered to the SCAQMD. (Note to readur, those edits included per CEC-Approved Amendments dated 5/4/2011 and 12/18/2012)	The project owner shall provide by email and post to the U.S. mail evidence demonstrating that they have surrendered the permits to operate for Huntington Beach boilers 3 and 4 prior to the first turbine fire. The project owner shall make the site available for inspection by representatives of the District, CARB, EPA and the Commission. In addition, the project owner shall make Huntington Beach boiler units 3 and 4 available for inspection to confirm shutdown of these boilers by representatives of the District, CARB, EPA and the Commission.  [Note to mover these edits included per CEC Approved Amondment that \$1/3/1011]	Upon completion of construction, operation of any equipment cannot start until HB Units 3 & 4 have been retired and permits for both units surrerendered to SCAQMD	Complete	Submitted to CEC 11/2/2012 Condition language revised per CEC Amendment Order No. 12-1114-4
AQ-SC01	PC	The Project Owner shall designate and retain an on-site Air Quality Construction Mitigation Manager for approval by CEC CPM. The AQCMM and all delegated monitors must be approved by the CPM before the start of ground disturbance.	Submit to the CPM for approval, the name, resume, qualifications, and contact information for the on-site AQCMM and any air quality construction mitigation monitors.	At least 60 days prior to the start of ground disturbance	Complete	Approved by CEC on 4/5/2011
AQ-SC02	PC	The Project Owner shall provide an Air Quality Construction Mitigation Plan for submittal to the CEC CPM 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.	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.	At least 60 days prior to the start of ground disturbance	Complete	Approved by CEC on 4/5/2011
AQ-SC03	CONS	AQCMM shall submit documentation in each Monthly Compliance Report demonstrating compliance with the mitigation measures outlined in the condition for the purposes of preventing all fugitive dust plumes from leaving the project site and linear facility routes (see AQ-SC03 for more details).	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, 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.	Include in MCR	Complete	Construction is complete; final MCR submitted 6/14/2013
AQ-SC04	CONS	The AQCMM shall continuously monitor construction activities for visible dust plumes. See AQ-SC04 for more details.	The AQCMP shall include a section detailing how the additional mitigation measures will be accomplished within the time limits specified (only applicable if conditions outlined in AQ-SCO4 exist).	Include in MCR	Complete	Construction is complete; final MCR submitted 6/14/2013
AQ-SC05	CONS	The AQCMM shall submit to the CPM, in the MCR, a construction mitigation report that demonstrates compliance with the following mitigation measures for the purposes of controlling diesel construction-related emissions. Any deviation from the following mitigation measures shall require prior CPM notification and approval. See AQ-SC05 for more details.	The project owner shall include in the MCR (1) a summary of all actions taken to maintain compliance with this condition, (2) copies of all diesel fuel purchase records, (3) 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 has been properly maintained, and (4) 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.  Page 6 of 34	Include in MCR	Complete	Construction is complete; final MCR submitted 6/14/2013  Updated 02-25-2019

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AQ-SC06a	CONS	The project owner shall submit to the CPM for review and approval any modification proposed by the project owner to any project air permit. 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.	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. The project owner shall submit all modified air permits to the CPM within 15 days of receipt.	Within 5 working days of proposed air permit modification submittal to agency	As required	Petition to Amend FDOC to SQAQMD on 3/3/2011; Petition to Amend FD to CEC on 3/8/2011.  Petition to Amend Facility Permit to AQMD, CEC on 6/11/2012  Revised Permit to CEC 10/10/2012  Revised Permit to CEC 1/25/2013  Revised Permit to CEC 1/20/2013
AQ-SC06b	OPS	The project owner shall submit to the CPM for review and approval any modification proposed by the project owner to any project air permit. 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.	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. The project owner shall submit all modified air permits to the CPM within 15 days of receipt.	Within 5 working days of proposed air permit modification submittal to agency	As required	Revised Permit to CEC 11/14/2014 Revised Permit to CEC 1/6/2015 Revised Permit to CEC 1/6/2016 Revised Permit to CEC 1/8/2017 Petition for Mod #10 to CEC 9/29/2017 Revised Permit to CEC 1/8/2018 Revised Permit to CEC 1/19/2018 Revised Permit to CEC 2/13/2018 Revised Permit to CEC 8/22/2018
AQ-SC07a	PC	To comply with offset requirements an affiliate of WCE, under common ownership of Edison Mission Energy (EME), has been created to purchase two electric utility steam boilers from AES Huntington Beach, LLC, and will permanently retire these units to qualify for a partial offset exemption on a net megawatt to net megawatt basis (450 MWs). The project owner shall also provide emission reduction credits (ERCs) to offset turbine exhaust and emergency equipment for VOC, PM10 and PM2.5 emissions associated with the increased generating capacity of 50.5 MWs in the form and amount required by the District. RECLAIM trading Credits (RTCs) shall be provided for NOx and SOx as is necessary to demonstrate compliance with Condition of Certification AQ-16. The project shall be exempt under District Rule 1304(a)(2) from providing ERCs for VOC (220 lb/day, includes an offset ratio of 1.2), for VOC, and PM10/PM2.5 for 89.91 percent of the full amount required by the District for these pollutants and shall provide ERCs at an offset ratio of 1.2:1.0 for the remaining 10.09 percent in accordance with the TABLE SET FORTH IN THE CONDITION. The project owner shall surrender the ERCs for VOC and PM10/PM2.5 from among those that are listed in the table below or a modified list, as allowed by this condition. If additional ERCs are submitted, the project owner shall submit an updated table including the additional ERCs to the CPM. The project owner shall request CPM approval for any substitutions, modifications, or additions of credits listed. [CEC Approved Language Changes on 5-4-11)	At least 10 days prior to commencement of construction, the project owner shall provide CPM by email and post to the U.S. mail a copy of the SCAQMD approved Permit to Construct to showing that the project's offset requirements have been met, by actual offset or exemption under Rule 1304(a)(2). Prior to commencement of-construction, The equipment shall not be operated unless the project owner shall obtain sufficient RTCs to satisfy the District's requirements for the first year of operation as prescribed in Condition of Certification AQ-16. If the CPM approves a substitution or modification to the list of ERCs, the CPM shall file a statement of the approval with the project owner and commission docket. The CPM shall maintain an updated list of approved ERCs for the project. [CEC Approved Language Changes on 5-4-11 and 12/28/2012)	At least 10 days prior to commencement of construction	Complete	Approved by CEC on 5/12/2011  Condition language revised per CEC Amendment Order No. 12-1114-4
AQ-SC07b	PC	The CPM, in consultation with the District, may approve any such change to the ERC list provided that the project remains in compliance with all applicable laws, ordinances, regulations, and standards, the requested change(s) will not cause the project to result in a significant environmental impact, and the District confirms that each requested change is consistent with applicable federal and state laws and regulations.	The project owner shall request from the District the verification to identify the ERCs used to offset the project emissions after the District has issued the Permit to Construct. This report is to specifically identify the ERCs and PRCs used to offset the project emissions. (CEC Approved Language Changes on 5-4-11)	After the District has issued the PTC	Complete	Approved by CEC on 4/29/2011
AQ-SC08	CONS	Project owner shall not start operation of any equipment until both boiler units 3 and 4 currently located at AES Huntington Beach Generating Station have been retired and permits for boilers 3 and 4 surrendered. [Condition deleted per CECapproved amendment dated 5/4/2011]	The project owner shall provide written evidence demonstrating that they have surrendered the permits to operate for Huntington Beachboilers 3 and 4  Page 7 of 34	10 days prior to start of operation of any emissions source	N/A	Condition Deleted per Amendment Order No. 11- 0504-2 Updated 02-25-2019

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AQ-SC09	OPS	If the project owner does not participate in the voluntary California Climate Action Registry, then the project owner shall report on a quarterly basis to the CPM the quantity of greenhouse gases (GHG) emitted as a direct result of facility electricity production as follows: The project owner shall maintain a record of fuel use inunits of million Btu (MMBtu) for all fuels burned on site for the purpose of power-production. These fuels shall include but are not limited to: (1) all fuel burned in the combustion turbines, (2) HRSGs (if applicable) or auxiliary boiler (ifapplicable), and (3) all fuels used in any capacity for the purpose of turbine startup, shutdown, operation or emission controls. See AQ SCO9 for more details. [Condition deleted per CEC-approved amendment dated 12/18/2012]	GHG emissions that are not reported to the California Climate Action-Registry shall be reported to the CPM as part of the Quarterly-Operation Reports required by condition of certification AQ SC10.	<del>Include in QOR</del>	N/A	Condition Deleted per Amendment Order No. 12- 1114-4
AQ-SC10	OPS	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 note or highlight incidences of noncompliance.	Submit the Quarterly Operation Reports to the CPM and APCO no later than 30 days following the end of each calendar quarter.	30 days following end of calendar quarter	4/30/2019	Q1 QOR Submitted 4/27/2018 Q2 QOR Submitted 7/27/2018 Q3 QOR Submitted 10/29/2018 Q4 QOR Submitted 1/30/2019
AQ-SC11	OPS	The project owner shall perform quarterly cooling tower recirculating water quality testing, or shall provide for continuous monitoring of conductivity as an indicator, for total dissolved solids content.	Submit to the CPM cooling tower recirculating water quality tests or a summary of continuous monitoring results and daily recirculating water flow in the Quarterly Operation Report (AQ-SC10). If the project owner uses continuous monitoring of conductivity as an indicator for total dissolved solids content, the project owner shall submit data supporting the calibration of the conductivity meter and the correlation with total dissolved solids content at least once each year in a Quarterly Operation Report (AQ-SC10).	Include in QOR	4/30/2019	Q1 QOR Submitted 4/27/2018 Q2 QOR Submitted 7/27/2018 Q3 QOR Submitted 10/29/2018 Q4 QOR Submitted 1/30/2019
AQ-SC12	OPS	The cooling tower daily PM10 emissions shall be limited to 10.7 lb/day. The cooling tower shall be equipped with a drift eliminator to control the drift fraction to 0.0005 percent of the circulating water flow. The project owner shall estimate daily PM10 emissions from the cooling tower using the water quality testing data or continuous monitoring data and daily circulating water flow data collected on a quarterly basis. See AQ-SC12 for more details.	Submit to the CPM daily cooling tower PM10 emission estimates in the Quarterly Operation Report (AQ-SC10).	Include in QOR	4/30/2019	Q1 QOR Submitted 4/27/2018 Q2 QOR Submitted 7/27/2018 Q3 QOR Submitted 10/29/2018 Q4 QOR Submitted 1/30/2019
BIO-01	PC	The project owner shall design, install, and maintain transmission lines and all electrical components in accordance with the Avian Power Line Interaction Committee, Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 1996, to reduce the likelihood of electrocutions of large birds.	No fewer than 60 days prior to the start of site mobilization [of the t-line construction], the project owner shall submit to the CPM written verification that the transmission line design meets APLIC guidelines.	At least 60 days prior to site mobilization for the transmission line	Complete	CEC approved EME email on 5/27/2011
BIO-01a	CONS	The project owner shall design, install, and maintain transmission lines and all electrical components in accordance with the Avian Power Line Interaction Committee, Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 1996, to reduce the likelihood of electrocutions of large birds.	Provide photos to document how transmission line and towers were constructed and meet APLIC guidelines (per email from Dale Rundquist on 5/27/2011)	Following completion of subject work	Complete	Submitted to CEC 10/18/2012; Additional photos/memo provided 11/19/2012 in response to staff request
CIVIL-01a	PC	The project owner shall submit to the CBO for review and approval the design of the proposed drainage structures and the grading plan.	Submit the requested information to the CBO for review and approval.	Submit to CBO at least 15 days prior to the start of site grading	Complete	Approved by CBO on 5/20/2011

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CIVIL-01b	PC	The project owner shall submit to the CBO for review and approval an erosion and sedimentation control plan and related calculations and specifications, signed and stamped by the responsible civil engineer.	Submit the requested information to the CBO for review and approval.	Submit to CBO at least 15 days prior to the start of site grading	Complete	CBO approval provided to CEC CPM on 5/26/2011
CIVIL-01c	PC	The project owner shall submit to the CBO for review and approval the Soils Report, Geotechnical Report or Foundation Investigations Report required by the 2001 CBC [Appendix Chapter 33, Section 3309.5, Soils Engineering Report; Section 3309.6, Engineering Geology Report; and Chapter 18, Section 1804, Foundation Investigations].	Submit the requested information to the CBO for review and approval.	Submit to CBO at least 15 days prior to the start of site grading	Complete	CBO approval provided to CEC CPM on 5/26/2011
CIVIL-01d	PC	In the next MCR following CBO approval of subject documents, submit a written statement certifying that the documents have been approved by the CBO.	Submit a statement in MCR certifying that documents have been approved by CBO.	Include in MCR	Complete	Submitted in June 2011 MCR
CIVIL-02a	CONS	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.	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 discovery	Complete	Construction is complete; no work was stopped due to unforeseen adverse geologic/soil conditions
CIVIL-02b	CONS	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 [2001 CBC, Section 104.2.4, Stop orders].	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.	Within 24 hours of CBO approval to resume earthwork	Complete	Construction is complete; no work was stopped due to unforeseen adverse geologic/soil conditions
CIVIL-03a	CONS	The project owner shall perform inspections in accordance with the 2001 CBC, Chapter 1, Section 108, Inspections; Chapter 17, Section 1701.6, Continuous and Periodic Special Inspection; and Appendix Chapter 33, Section 3317, Grading Inspection. 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 and the CBO [2001 CBC, Appendix Chapter 33, Section 3317.7, Notification of Noncompliance]. The project owner or resident engineer shall prepare a written report, with copies to the CBO and the CPM, detailing all discrepancies, non-compliance items, and the proposed corrective action.	The project owner or 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.	Within five days of the discovery of any discrepancies	Complete	Construction is complete and certificate of occupancy issued
CIVIL-03b	CONS	A list of NCRs, for the reporting month, shall also be included in the following Monthly Compliance Report.	Include the required documentation in the MCR.	Include in MCR	Complete	Construction is complete; final MCR submitted 6/14/2013
CIVIL-04a	CONS	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 [2001 CBC, Section 3318, Completion of Work].	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, with a copy of the transmittal letter to the CPM.	Within 30 days (or project owner and CBO approved alternative timeframe) of the completion of the erosion and sediment control mitigation and drainage work	Complete	Submitted to CBO 5/8/2013
CIVIL-04b	CONS	The project owner shall submit a copy of the CBO's approval to the CPM in the next Monthly Compliance Report.	Include the required documentation in the MCR.	Include in MCR	Complete	Approval Provided in May 2013 MCR
COM-01	OPS	The CPM, responsible Energy Commission staff, and delegate agencies or consultants shall be guaranteed and granted unrestricted access to the power plant site, related facilities, project-related staff, and the records maintained on site, for the purpose of conducting audits, surveys, inspections, or general site visits. Although the CPM will 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.	Owner and Contractor shall give CEC staff access as required by this condition.	Ongoing	Ongoing	

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Cond. #	Phase	Description of Condition of Certification	Verification Requirement	Submittal Deadline to CEC	Projected Completion Date	Status/ Comments
СОМ-02	OPS	Compliance RecordThe files are to contain copies of all "as-built" drawings, all documents submitted as verification for conditions, and all other project-related documents. Energy Commission staff and delegate agencies shall, upon request to the project owner, be given unrestricted access to the files.	Owner and Contractor shall give CEC staff access as required by this condition.	Ongoing	Ongoing	
COM-03	OPS	Each condition of certification is followed by a means of verification. The verification describes the Energy Commission's procedure(s) to ensure post-certification compliance with adopted conditions. The verification procedures, unlike the conditions, may be modified as necessary by the CPM, and in most cases without full Energy Commission approval. See condition COM-3 for details	See condition COM-3 for details on verification options and timeframes	Ongoing	Ongoing	
COM-04	PC	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. This matrix will be included with the project owner's <b>first</b> compliance submittal or prior to the first pre-construction meeting, whichever comes first.	Construction shall not commence until the pre-construction matrix is submitted, all pre-construction conditions have been complied with, and the CPM has issued a letter to the project owner authorizing construction.	Prior to the start of construction	Complete	Matrix approved by CEC on 4/21/2011 CEC Approval Letter to Start Construction received 5/26/2011
COM-05a	CONS	A compliance matrix shall be submitted by the project owner to the CPM along with each monthly and annual compliance report. The compliance matrix is intended to provide the CPM with the current status of all conditions of certification in a spreadsheet format. The compliance matrix must identify specific items in a specific format. See COM-05 for details	Submit a compliance matrix with each MCR and ACR. Satisfied conditions do not need to be included in the compliance matrix after they have been identified as satisfied in at least one monthly or annual compliance report.	Include in MCR	Complete	Construction is complete; final MCR submitted 6/14/2013
COM-05b	OPS	A compliance matrix shall be submitted by the project owner to the CPM along with each monthly and annual compliance report. The compliance matrix is intended to provide the CPM with the current status of all conditions of certification in a spreadsheet format. The compliance matrix must identify specific items in a specific format. See COM-05 for details	Submit a compliance matrix with each MCR and ACR. Satisfied conditions do not need to be included in the compliance matrix after they have been identified as satisfied in at least one monthly or annual compliance report.	Include in ACR	2/28/2019	2018 ACR Due 2/28/2019
COM-06	CONS	Monthly Compliance Report - The first Monthly Compliance Report is due one month following the Energy Commission business meeting date upon which the project was approved, unless otherwise agreed to by the CPM. The first Monthly Compliance Report shall include an initial list of dates for each of the events identified on the Key Events List.	During pre-construction and construction of the project, the project owner or authorized agent shall submit an original and eight copies of the Monthly Compliance Report within 10 working days after the end of each reporting month. Monthly Compliance Reports shall be clearly identified for the month being reported. The reports shall contain specific information. See COM-06 for details	Include in MCR	Complete	Construction is complete; final MCR submitted 6/14/2013
СОМ-07	OPS	After construction is complete, the project owner shall submit Annual Compliance Reports instead of Monthly Compliance Reports. The reports are for each year of commercial operation and are due to the CPM each year at a date agreed to by the CPM. Annual Compliance Reports shall be submitted over the life of the project unless otherwise specified by the CPM. Each Annual Compliance Report shall identify the reporting period and shall contain the following: See COM-7 for details	See COM-07 for details.	Include in ACR	2/28/2019	2018 ACR Due 2/28/2019
СОМ-08	OPS	Confidential Information Any information that the project owner deems confidential shall be submitted to the Energy Commission's Dockets Unit with an application for confidentiality pursuant to Title 20, California Code of Regulations, section 2505(a). Any information that is determined to be confidential shall be kept confidential as provided for in Title 20, California Code of Regulations, section 2501 et. seq.		As required	As required	

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COM-09	OPS	Pursuant to the provisions of Section 25806(b) of the Public Resources Code, the project owner is required to pay an annual fee currently sixteen thousand eight hundred fifty dollars (\$16,850), which will be adjusted annually on July 1.	The initial payment is due on the date the Energy Commission adopts the final decision. All subsequent payments are due by July 1 of each year in which the facility retains its certification. The payment instrument shall be made payable to the California Energy Commission and mailed to: Accounting Office MS-02, California Energy Commission, 1516 9th St., Sacramento, CA 95814.	Annually on July 1	7/1/2019	CEC will send an invoice to WCE LLC.
COM-10a	PC	Prior to the start of construction, the project owner must send a letter to property owners living within one mile of the project notifying them of a telephone number to contact project representatives with questions, complaints or concerns. All recorded complaints shall be responded to within 24 hours. The telephone number shall be posted at the project site and made easily visible to passersby during construction and operation. The telephone number shall be provided to the CPM.	In addition to the monthly and annual compliance reporting requirements, the project owner shall report and provide copies to the CPM of all complaint forms, notices of violation, notices of fines, official warnings, and citations, within 10 days of receipt. Complaints shall be logged and numbered. Complaints shall be recorded on the complaint form (Attachment A) or equivalent submittal. Any changes to the telephone number shall be submitted immediately to the CPM, who will update the web page.	Within 10 days of receipt	Complete	Approved by CEC on 5/18/11
COM-10b	OPS	In addition to the monthly and annual compliance reporting requirements, the project owner shall report and provide copies to the CPM of all complaint forms, notices of violation, notices of fines, official warnings, and citations, within 10 days of receipt.	Complaints shall be logged and numbered. Complaints shall be recorded on the complaint form (Attachment A) or equivalent submittal.	Within 10 days of receipt	As required	
COM-11	OPS	Planned Facility Closure In order to ensure that a planned facility closure does not create adverse impacts, a closure process that provides for careful consideration of available options and applicable laws, ordinances, regulations, standards, and local/regional plans in existence at the time of closure, will be undertaken.	To ensure adequate review of a planned project closure, the project owner shall submit a proposed facility closure plan to the Energy Commission for review and approval at least 12 months (or other period of time agreed to by the CPM) prior to commencement of closure activities. The project owner shall file 120 copies (or other number of copies agreed upon by the CPM) of a proposed facility closure plan with the Energy Commission. The plan shall include all topics detaoled in COM-11. See COM-11 for details	12 months prior to planned closure	As required	
COM-12a	OPS	Unplanned Temporary Facility Closure/On-Site Contingency Plan In order to ensure that public health and safety and the environment are protected in the event of an unplanned temporary facility closure, it is essential to have an on-site contingency plan in place. The on-site contingency plan will help to ensure that all necessary steps to mitigate public health and safety impacts and environmental impacts are taken in a timely manner.	Submit an on-site contingency plan for CPM review and approval. The approved plan must be in place prior to commercial operation of the facility and shall be kept at the site at all times.	No less than 60 days (or other time agreed to by the CPM) prior to commencement of commercial operation	Pending CEC Approval	Submitted 3/1/2013 Revised version in response to comments provided 5/1/2013
COM-12b	OPS	The project owner, in consultation with the CPM, will update the on-site contingency plan as necessary. The CPM may require revisions to the on-site contingency plan over the life of the project.	In the annual compliance reports submitted to the Energy Commission, the project owner will review the on-site contingency plan, and recommend changes to bring the plan up to date. Any changes to the plan must be approved by the CPM. 3) Contractor shall support plan development as needed. See COM-11 for details.	Include in ACR	2/28/2019	No revisions needed for 2018
COM-13	OPS	The on-site contingency plan required for unplanned temporary closure shall also cover unplanned permanent facility closure. All of the requirements specified for unplanned temporary closure shall also apply to unplanned permanent closure. In addition, the on-site contingency plan shall address how the project owner will ensure that all required closure steps will be successfully undertaken in the event of abandonment.	In the event of an unplanned permanent closure, the project owner shall notify the CPM, as well as other responsible agencies, by telephone, fax, or e-mail, within 24 hours and shall take all necessary steps to implement the on-site contingency plan. The project owner shall keep the CPM informed of the status of all closure activities. A closure plan, consistent with the requirements for a planned closure, shall be developed and submitted to the CPM within 90 days of the permanent closure or another period of time agreed to by the CPM.	Notify CPM and other agencies within 24 hrs of decision for permanent closure	As required	

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Cond. #	Phase	Description of Condition of Certification	Verification Requirement	Submittal Deadline to CEC	Projected Completion Date	Status/ Comments
COM-14	OPS	Post Certification Changes to the Energy Commission Decision: Amendments, Ownership Changes, Insignificant Project Changes and Verification Changes The project owner must petition the Energy Commission pursuant to Title 20, California Code of Regulations, section 1769, in order to modify the project (including linear facilities) design, operation or performance requirements, and to transfer ownership or operational control of the facility. It is the responsibility of the project owner to contact the CPM to determine if a proposed project change should be considered a project modification pursuant to section 1769. Implementation of a project modification without first securing Energy Commission, or Energy Commission staff approval, may result in enforcement action that could result in civil penalties in accordance with section 25534 of the Public Resources Code.	A petition is required for amendments and for insignificant project changes as specified in the condition. For verification changes, a letter from the project owner is sufficient. In all cases, the petition or letter requesting a change should be submitted to the CPM, who will file it with the Energy Commission's Dockets Unit in accordance with Title 20, California Code of Regulations, section 1209. The criteria that determine which type of approval and the process that applies are explained in more detail in COM-14. They reflect the provisions of Section 1769 at the time this condition was drafted. If the Commission's rules regarding amendments are amended, the rules in effect at the time an amendment is requested shall apply. See COM-14 for more detail	As Required	As required	Petition for Mod #10 to CEC 9/29/2017
CUL-01a	PC	The Project Owner shall obtain the services of a Cultural Resources Specialist (CRS) and Cultural Resource Monitors.	Submit CRS and alternate(s) resumes to the CPM for review and approval.	At least 45 days prior to ground disturbance	Complete	Approved by CEC on 4/11/11
CUL-01b	CONS	Prior to a termination or release of the CRS, or within 3 days after resignation of the CRS, the project owner shall submit the resume of the proposed new CRS to the CPM for review and approval. If there is no alternate CRS in place to conduct the duties of the CRS, a previously approved monitor may serve in place of a CRS so that construction may continue up to a maximum of 3 days without a CRS. If cultural resources are discovered then construction will remain halted until there is a CRS or alternate CRS to make a recommendation regarding significance.	Submit the resume of the replacement CRS to the CPM.	At least 10 days prior to a termination or release of the CRS	Complete	Alternate CRS Approved by CEC on 08/01/11  Construction is complete as of 5/1 - no additional  CRS will be required
CUL-01b	PC	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 of certification.	Submit the required documentation to the CPM.	At least 10 days prior to the start of pre-construction site mobilization	Complete	Approved by CEC on 4/11/11
CUL-01c	PC	The CRS shall provide a letter naming anticipated CRMs for the project and stating that the identified CRMs meet the minimum qualifications for cultural resource monitoring required by this condition.	Submit the required letter to the CPM.	At least 20 days prior to start of pre-construction site mobilization	Complete	Approved by CEC on 5/4/11
CUL-01d	CONS	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	Submit the required letter to the CPM.	At least five days prior to the CRMs beginning on-site duties	Complete	Construction is complete - no additional CRMs will be needed
CUL-01e	CONS	Prior to beginning specialized technical tasks, the resume(s) of any additional technical specialists shall be provided to the CPM for review and approval.	Submit the required resumes to the CPM.	At least 10 days prior to beginning specialized tasks	Complete	Construction is complete - no additional technical specialists will be needed
CUL-02a	PC	The Project Owner shall provide the CRS and the CPM with maps and drawings showing the footprint of the power plant and all linear facilities.	Submit the subject documents to the CRS and the subject maps and drawings to the CPM and CRS. The CPM will review the project owner's submittals in consultation with the CRS and approve maps and drawings suitable for cultural resources planning activities.	At least 40 days prior to the start of pre-construction site mobilization	Complete	Approved by CEC on 5/4/11
CUL-02b	CONS	If there are changes to any project-related footprint, the project owner shall provide to the CRS and CPM revised maps and drawings for those changes and an e-mail or letter from the CRS stating that cultural resources information, compiled during the siting phase of the project, has been received.	Provide to the CRS and CPM revised maps and drawings for those changes and an e-mail or letter from the CRS stating that cultural resources information, compiled during the siting phase of the project, has been received.	At least 15 days prior to the start of pre-construction site mobilization; construction ground disturbance; construction grading, boring, and trenching; and construction	Complete	Submitted 08/01/11
CUL-02c	CONS	Provide subject documents to CRS, if not previously provided.	Provide subject maps and drawings to CRS, and notify CPM and CRS in writing to identify the proposed schedule of each project phase.	At least 15 days prior to each phase, if construction is phased	Complete	Construction is complete as of 5/1

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Cond. #	Phase	Description of Condition of Certification	Verification Requirement	Submittal Deadline to CEC	Projected Completion Date	Status/ Comments
CUL-02d	PC	On a weekly basis, a current schedule of anticipated project activity shall be provided to the CRS and CPM by letter, email, or fax.	Provide a current schedule of anticipated project activity to the CRS and CPM by letter, email, or fax.	On a weekly basis prior to and during site mobilization and construction activity	Complete	Approved by CEC on 5/12/11
CUL-02e	CONS	On a weekly basis, a current schedule of anticipated project activity shall be provided to the CRS and CPM by letter, email, or fax.	Provide a current schedule of anticipated project activity to the CRS and CPM by letter, email, or fax.	On a weekly basis during construction	Complete	Schedule is provided weekly on Mondays via email
CUL-02f	CONS	If compliance documents are being submitted in keeping with a phased project schedule, provide written notice of any changes to the scheduling of construction phases to the CRS and CPM.	Provide written notification of changes to the scheduling of construction phases to the CRS and CPM.	Within 5 days of identifying any changes to the scheduling of construction phases	Complete	Construction is complete as o 5/1  Construction is complete as of 5/1
CUL-03a	PC	Phases to the CAMMP, as prepared by the CRS, to the CPM for approval. Copies of the CRMMP shall reside with the CRS, alternate CRS, each monitor, and the Project Owner's on-site manager.	Submit the subject CRMMP to the CPM for approval. Ground disturbance activities may not commence until the CRMMP is approved, unless specifically approved by the CPM.	At least 30 days prior to the start of pre-construction site mobilization	Complete	Approved by CEC on 5/19/11
CUL-03b	PC	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, monitoring, and data recovery).	Submit the Curation Agreement letter to the CPM for approval.	At least 30 days prior to the start of pre-construction site mobilization	Complete	Approved by CEC on 5/4/11
CUL-04a	CONS	Submit the Cultural Resources Report (CRR) to the CPM for approval. All survey reports and other research reports not previously submitted to the CA Historic Resource Information Office and State Historic Preservation Officer shall be included as an appendix to the CRR. See Cul-4 for additional detail.	Submit the subject CRR to the CPM for review and approval.	Within 90 days after completion of all ground disturbance (including landscaping)	Pending CEC Approval	Submitted 7/30/2013 and confirmed lanscaping completion 8/4/2014.
CUL-04b	CONS	Provide documentation to the CPM that copies of the CRR have been provided to the SHPO, the CHRIS, and the curating institution (if archaeological materials were collected and curated).	Provide the required documentation to the CPM.	Within 10 days after CPM approval of the CRR	TBD	Pending CEC Approval of CUL-04a.
CUL-05a	PC	Prior to and for the duration of ground disturbance, the Project Owner shall provide WEAP training to all new workers within their first week of employment. An acknowledgement form shall be signed by each worker, and a sticker shall be placed on hard hats indicating training has been received.	Provide the CRS draft text and graphics for the training program to CPM for approval.	At least 30 days prior to the start of ground disturbance	Complete	Approved by CEC on 4/27/11; final WEAP approved
CUL-05b	CONS	Provide in the Monthly Compliance Report the WEAP Certification of Completion forms of persons who have completed the training in the prior month and a running total of all persons who have completed training to date.	Include the required documentation in the MCR.	Include in MCR	Complete	Construction is complete; final MCR submitted 6/14/2013
CUL-06a	PC	The Project Owner shall ensure that the CRS, alternate CRS, or CRMs shall monitor ground disturbance full time in the vicinity of the project site, linears and ground disturbance at laydown areas or other ancillary areas to ensure there are no impacts to undiscovered resources and to ensure that known resources are not impacted in an unanticipated manner.	Provide to the CPM a copy of the agreement between the CRS, or between the environmental firm employing the CRS, and the curation facility(ies). In addition, the Owner will provide to the CRS reproducible copies of forms to be used as daily monitoring logs and non-compliance reports.	At least 30 days prior to pre- construction site mobilization etc.	Complete	Approved by CEC on 5/4/11
CUL-06b	CONS	At the beginning of each week following monitoring, the CRS shall provide copies of the legibly handwritten daily logs of the monitors to the CPM as emails or in some other form acceptable to the CPM.	The CRS shall provide copies of daily monitoring logs to the CPM.	At the beginning of each week during monitoring activity	Complete	Logs are provided weekly via email.  Construction is complete as of 5/1
CUL-06c	CONS	While monitoring is on-going, the project owner shall include in each MCR a copy of the monthly summary report of cultural resources-related monitoring prepared by the CRS. Copies of daily logs shall be retained by the project owner on-site during construction.	Include the required information in the MCR.	Include in MCR	Complete	Construction is complete; final MCR submitted 6/14/2013
CUL-06d	CONS	If the CRS determines that full-time monitoring is not necessary in certain locations, a letter or e-mail providing a detailed justification for the decision to reduce the level of monitoring shall be provided to the CPM for review and approval at least 24 hours prior to any reduction in monitoring.	Provide the required justification letter to the CPM for review and approval.	At least 24 hours prior to any reduction in monitoring	Complete	Construction is complete as of 5/1

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CUL-06e	CONS	The CRS and/or the project owner shall notify the CPM by telephone or e-mail within 24 hours of any incidents of non-compliance with the Cultural Resources conditions of certification and/or applicable LORS, upon becoming aware of the situation. The CRS shall also recommend corrective action to resolve the problem or achieve compliance with the conditions of certification.	Provide required notification to CPM.	Within 24 hours of any incidents of non-compliance	Complete	Construction is complete as of 5/1
CUL-06f	CONS	When the incident of non-compliance (see CUL-06e) 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 Monthly Compliance Report (MCR).	Provide required documentation in MCR.	Include in MCR	Complete	Construction is complete; final MCR submitted 6/14/2013
CUL-07	CONS	A Native American monitor or monitors shall be obtained to monitor preconstruction site mobilization, construction ground disturbance, construction grading, boring, and trenching and construction (including landscaping) in areas where ground disturbance exceeds three feet and in areas where Native American artifacts may be discovered. Lists of concerned Native Americans, with contact information, and guidelines for monitoring shall be obtained from the Native American Heritage Commission. Preference in selecting a monitor or monitors shall be given to Native Americans with traditional ties to the area that shall be monitored.	Send notification to the CPM identifying the person(s) retained to conduct Native American monitoring in areas where there is potential to discover Native American artifacts. The project owner shall also provide a plan identifying the proposed monitoring schedule and information explaining how Native Americans who wish to provide comments will be allowed to comment. The project owner shall also ensure that the CRS informs Native American groups of any discoveries of Native American archaeological material. 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 to proceed without a Native American monitor.	Within one day of obtaining a Native American monitor	Complete	Construction is complete as of 5/1
CUL-08a	CONS	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 AM on Friday and 8:00 AM on Sunday.	For discovered cultural material that cannot be treated prescriptively, completed DPR form 523s shall be submitted to the CPM for review and approval no later than 48 hours following the notification of the CPM, or 48 hours following the completion of data recordation/recovery, whichever is more appropriate for the subject cultural material.	Within 24 hours of a discovery	Complete	Construction is complete as of 5/1
CUL-08a	PC	The project owner shall grant authority to halt construction to the CRS, alternate CRS, and the CRMs in the event previously unknown cultural resources sites or materials are encountered (discovery), or if known resources may be impacted in a previously unanticipated manner.	Provide the CPM and CRS with a letter confirming that the CRS, alternate CRS, and CRMs have the authority to halt pre-construction site mobilization, construction ground disturbance, construction grading, boring, and trenching and construction activities within 100 feet of a cultural resources discovery.	At least 30 days prior to pre- construction site mobilization etc.	Complete	Approved by CEC on 5/4/11
ELEC-01a	CONS	Prior to the start of any increment of electrical construction for electrical equipment and systems 480 volts and higher, listed below, with the exception of underground duct work and any physical layout drawings and drawings not related to code compliance and life safety, Submit, for CBO design review and approval, the proposed final design, specifications and calculations. Upon approval, the listed plans, together with design changes and design change notices, shall remain on the site or 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 [2001 CBC, Section 108.4, Approval Required, and Section 108.3, Inspection Requests]. See ELEC-1 for details.	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.	At least 30 days (or project owner and CBO approved alternative timeframe) prior to the start of each increment of electrical construction	Complete	
ELEC-01b	CONS	The project owner shall send the CPM a copy of the transmittal letter in the next MCR.	Include in MCR.	Include in MCR	Complete	Construction is complete; final MCR submitted 6/14/2013

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## CPM 1 Processory  ## CPM 2 Processory  ## CPM 3	Cond. #	Phase	Description of Condition of Certification	Verification Requirement	Submittal Deadline to CEC	Projected Completion Date	Status/ Comments
GN 012  CN 022  CN 023  CN 024  CN 024  CN 025  CN 025	GEN-01a	CONS	with the 2001 California Building Standards Code (CBSC) (also known as Title 24, California Code of Regulations). The project owner shall insure that all the provisions of the above applicable codes be enforced during any construction, addition, alteration, moving, demolition, repair, or maintenance of the completed facility [2001 CBC, Section 101.3, Scope]. The project owner shall insure that all contracts with contractors, subcontractors and suppliers shall clearly specify that all work performed and materials supplied on this project comply with the codes	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. The project owner shall provide the CPM a copy of the Certificate of Occupancy within 30 days of receipt	The state of the s	Complete	Submitted 6/13/2013
the CPM prior to any construction, addition, alteration, moving demollton, require CRD approval for the purpose of completed facility which may require CRD approval for the purpose of completed facility which may require CRD approval for the purpose of completed facility which may require CRD approval for the purpose of complete facility which may require CRD approval for the purpose of complete facility which may require CRD approval for the purpose of complete facility which may require CRD approval for the purpose of complete on the work to be performed.  The complete facility which may require CRD approval or the work to be performed.  The complete facility which may require CRD approval or the purpose of complete on the white sections of complete on the work to be performed.  The complete facility which may require CRD approval or the purpose of complete of the purpose of the complete of the purpose of the cRD or the state of the cRD or	GEN-01b	CONS	the CPM prior to any construction, addition, alteration, moving, demolition, repair, or maintenance to be performed on any portion(s) of the completed facility which may require CBO approval for the purpose of complying with the above stated codes. The CPM will then determine the necessity of CBO approval	Inform the CPM if necessary.	construction, addition, alteration, moving, demolition, repair, or	Complete	Construction is complete as of 5/1
when requested.  CONS  C	GEN-01c	OPS	the CPM prior to any construction, addition, alteration, moving, demolition, repair, or maintenance to be performed on any portion(s) of the completed facility which may require CBO approval for the purpose of complying with the above stated codes. The CPM will then determine the necessity of CBO approval	Inform the CPM if necessary.	construction, addition, alteration, moving, demolition, repair, or	As Needed	Notified on 1/14/2015
Compliance Report.  The project owner shall make payments to the CBO for design review, plan check and construction inspection 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 2001 CBC (Chapter 1, Section 107 and Table 1-A, Grading Plan Review Fees, and Table A-3-A, Grading Plan Review Fees, and Table A-3-B, G	GEN-02a	РС	owner shall furnish to the CPM and to the CBO a schedule of facility design submittals, a Master Drawing List and a Master Specifications List. 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	List and the Master Specifications List 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	and CBO approved alternative timeframe) prior to the start of	Complete	
and construction inspection 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 2001 CBC [Chapter 1, Section 107 and Table 1-A, Grading Plan Review Fees; and Table A-33-A, Gording Plan Review Fees; and Table A-33-A, Gording Plan Review Fees; and Table A-33-B, Grading Permit 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 as otherwise agreed by the project owner and the CBO.  The Project Owner shall assign a California registered architect, structural engineer or vivil engineer, as a resident engineer (RE), to be in general responsible charge of the project (Lau, Code Regs., tit. 24, 54-209, Designation of Responsibilities)].  The Project Owner shall assign a California registered architect, structural engineer of the project Owner shall assign and California registered architect, structural engineer of the project owner shall notify the CPM of the CBO's approval.  The Project Owner shall assign a California registered architect, structural engineer of the project owner shall notify the CPM of the CBO's approval.  The Project Owner shall assign a California registered architect, structural engineer of the project owner shall notify the CPM of the CBO's approval of the RE and other delegated engineers as assigned to the project. The project owner shall notify the CPM of the CBO's approval 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.  Make the required payments to the CBO in accordance with the Bagreem to the CBO in accordance with the Bagreem to the CBO in accordance with the RE and octor the CBO in accordance with the RE or the delegated engineer to the CBO or review and approval. The project owner shall notify the CBO's approval of the new engineer within five days of the CBO's approval of the new engine	GEN-02b	CONS		Include in MCR.	Include in MCR	Complete	
GEN-04a  PC  In Project Owner shall assign a California registered architect, structural engineer or civil engineer, as a resident engineer (RE), to be in general responsible charge of the project [Building Standards Administrative Code (Cal. Code Regs., tit. 24, § 4-209, Designation of Responsibilities)].  GEN-04b  CONS  If the RE or the delegated engineers are reassigned or replaced, the project owner shall notify the CPM of the CBO's approval 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.  At least 30 days prior to the start of rough grading  Complete  At least 30 days prior to the start of rough grading  Complete  At least 30 days prior to the start of rough grading  Complete  Approved by CBO on 4/8/11; evidence submitted to CPM on 4/12/11  At least 30 days prior to the start of rough grading  Complete  At least 30 days prior to the start of rough grading  Complete  At least 30 days prior to the start of rough grading  Complete  At least 30 days prior to the start of rough grading  Complete  At least 30 days prior to the start of rough grading  Complete  At least 30 days prior to the start of rough grading  Complete  At least 30 days prior to the start of rough grading  Complete  At least 30 days prior to the start of rough grading  Complete  At least 30 days prior to the start of rough grading  Complete  At least 30 days prior to the start of rough grading  Complete  At least 30 days prior to the start of rough grading  Complete  The project owner shall notify the CBO's approval.  Complete  Com	GEN-03	CONS	and construction inspection 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 2001 CBC [Chapter 1, Section 107 and Table 1-A, Building Permit Fees; Appendix Chapter 33, Section 3310 and Table A-33-A, Grading Plan Review Fees; and Table A-33-B, Grading Permit 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 as otherwise agreed	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 the applicable	Include in MCR	Complete	
If the RE or the delegated engineers are reassigned or replaced, the project owner has five days in which to submit the shall submit the name, qualifications 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.  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 new engineer within five days of the new engineer.  Within 5 days of replacement of the CBO's approval of the new engineer within five days of the new engineer within five days of the CBO's approval of the new engineer within five days	GEN-04a	PC	or civil engineer, as a resident engineer (RE), to be in general responsible charge of the project [Building Standards Administrative Code (Cal. Code Regs., tit. 24, § 4-	registration number of the RE and any other delegated engineers assigned to the project. The project owner shall notify the CPM of the CBO's approvals of the RE and other delegated engineer(s) within five		Complete	
Page 15 of 34 Updated 02-25-2019	GEN-04b	CONS	shall submit the name, qualifications and registration number of the newly assigned engineer to the CBO for review and approval. The project owner shall	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.	Within 5 days of replacement	Complete	of alternate RE will not be needed

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Cond. #	Phase	Description of Condition of Certification	Verification Requirement	Submittal Deadline to CEC	Projected Completion Date	Status/ Comments
GEN-05a	РС	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) a civil engineer; and B) a soils engineer, or a geotechnical engineer or a civil engineer experienced and knowledgeable in the practice of soils engineering. 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: C) 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; D) a mechanical engineer; and E) an electrical engineer.	Submit to the CBO for review and approval, resumes and registration numbers of the responsible civil engineer and soils (geotechnical) 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. The project owner shall notify the CPM of the CBO's approvals of the responsible engineers within five days of the approval.	At least 30 days (or project owner and CBO approved alternative timeframe) prior to the start of rough grading	Complete	Approved by CBO on 4/12/11; evidence submitted to CPM on 4/13/11; more on 4/25/11
GEN-05b	CONS	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.	Submit the resume and registration number of the replacement engineer within five days of replacement. Notify the CPM of the CBO's approvals of the responsible engineers within five days of the approval.	Within 5 days of replacement	Complete	Construction is complete as of 5/1 - Assignment of alternate responsible enginer will not be needed
GEN-06a	CONS	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 2001 CBC, Chapter 17 [Section 1701, Special Inspections; Section 1701.5, Type of Work (requiring special inspection)]; and Section 106.3.5, Inspection and observation program. All transmission facilities (lines, switchyards, switching stations and substations) are handled in conditions of certification in the Transmission System Engineering section of this document.	Submit to the CBO for review and approval, with a copy to the CPM, the name(s) and qualifications of the certified weld inspector(s), or other certified special inspector(s) assigned to the project to perform one or more of the duties set forth above.	At least 15 days (or project owner and CBO approved alternative timeframe) prior to the start of an activity requiring special inspection	Complete	Approved by CEC on 5/9/11
GEN-06b	CONS	The project owner shall also submit to the CPM a copy of the CBO's approval of the qualifications of all special inspectors in the next Monthly Compliance Report.	Include the required documentation in the MCR.	Include in MCR	Complete	Construction is complete; final MCR submitted 6/14/2013
GEN-06c	CONS	If the special inspector is subsequently reassigned or replaced, the project owner has five days in which to submit the name and qualifications of the newly assigned special inspector to the CBO for approval.	The project owner shall notify the CPM of the CBO's approval of the newly assigned inspector within five days of the approval.	Within 5 days of replacement	Complete	Construction is complete as of 5/1 - No new inspectors will be needed
GEN-07a	CONS	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 the corrective action required [2001 CBC, Chapter 1, Section 108.4, Approval Required; Chapter 17, Section 1701.3, Duties and Responsibilities of the Special Inspector; Appendix Chapter 33, Section 3317.7, Notification of Noncompliance]. 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, the 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.	Include in MCR	Complete	Construction is complete; final MCR submitted 6/14/2013
GEN-07b	CONS	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.	Advise CPM of reason for corrective action disapproval and submit revised corrective action to CBO.	Within 5 days of disapproval of corrective action	Complete	Construction is complete as of 5/1
GEN-08a	CONS	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 another accessible location during the operating life of the project [2001 CBC, Section 106.4.2, Retention of Plans]. 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 final approved engineering plans, specifications and calculations as described above, the project owner shall submit to the CPM a letter stating that the above documents have been stored and indicate the storage location of such documents.	Within 15 days of completion of any work	Complete	Construction is complete; final MCR submitted 6/14/2013

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GEN-08b	CONS	Provide copy of written notice to CBO described in GEN-08a to CPM in next MCR.	Provide subject documents to CPM in next MCR.	Include in MCR	Complete	Construction is complete; final MCR submitted 6/14/2013
GEN-08c	CONS	The project owner shall retain one set of approved engineering plans, specifications and calculations (including all approved changes) at the project site or at another accessible location during the operating life of the project [2001 CBC, Section 106.4.2, Retention of Plans].	Submit to the CPM a letter stating that the above documents have been stored and indicate the storage location of such documents.	After storing final approved engineering plans, specifications, and calculations	As required	
GEN-08d	CONS	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" adobe PDF 6.0 files, with restricted printing privileges (i.e. password protected), on archive quality compact discs.	Provide the required copies to the CBO.	Within 90 days of the completion of construction	Complete	Submitted July, 2013
HAZ-01	OPS	The project owner shall not use any hazardous materials not listed in the Application for Certification, or in greater quantities than those set forth in the AFC, unless approved in advance by the Compliance Project Manager (CPM).	Provide to the CPM, in the Annual Compliance Report, a list of hazardous materials and storage quantities contained at the facility.	Include in ACR	2/28/2019	2018 ACR Due 2/28/2019
HAZ-02a	CONS	The project owner shall concurrently provide a Business Plan and a Risk Management Plan (RMP) to the Certified Unified Program Authority – (CUPA) (Los Angeles County Fire Department, Health Hazardous Materials Division) and the CPM for review at the time the RMP is first submitted to the U.S. Environmental Protection Agency (EPA). After receiving comments from the CUPA, the EPA, 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 CUPA and EPA for information and to the CPM for approval.	Prior to receiving any hazardous material on the site for commissioning or operations, provide a copy of a final Business Plan to the CPM for approval.	At least 60 days prior to receiving any hazardous material on the site for commissioning or operation	Complete	Submitted to CPM and CUPA 7/9/2012 First hazardous materials delivery for commissioning/operations is expected on 9/24/2012
HAZ-02b	CONS	The project owner shall provide the final RMP to the CUPA for information and to the CPM for approval.	Provide the final RMP to the CUPA and CPM.	At least 60 days prior to delivery of aqueous ammonia to the site	Complete	Submitted 8/17/2012
HAZ-03	CONS	The project owner shall develop and implement a Safety Management Plan for delivery of aqueous ammonia. 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 aqueous ammonia with incompatible hazardous materials.	Provide a safety management plan as described above to the CPM for review and approval.	At least 60 days prior to the first delivery of aqueous ammonia to the facility	Complete	Submitted 8/17/2012
HAZ-04	CONS	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 tank 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 tank and secondary containment basins shall be submitted to the CPM.	Submit final design drawings and specifications for the ammonia storage tank and secondary containment basin to the CPM for review and approval.	At least 60 days prior to delivery of aqueous ammonia to the facility	Complete	Submitted to CPM 7/25/2012 Approval Received from CPM via email 12/20/2012
HAZ-05	CONS	The project owner shall ensure that no flammable material is stored within 50 feet of the sulfuric acid tank.	Provide copies of the facility design drawings showing the location of the sulfuric acid storage tank and the location of any tanks, drums, or piping containing any flammable materials.	At least 60 days prior to the first receipt of sulfuric acid on-site	Complete	Submitted to CPM 7/11/2012
HAZ-06	CONS	The project owner shall direct all vendors delivering aqueous ammonia to the site to use only tanker truck transport vehicles that meet or exceed the specifications of U.S. DOT Code MC-307.	Submit copies of the notification letter to supply vendors indicating the transport vehicle specifications to the CPM for review and approval.	At least 60 days prior to the first receipt of aqueous ammonia on site	Complete	Submitted 8/20/2012
HAZ-07	CONS	The project owner shall direct all vendors delivering any hazardous material to the site to use only the route approved by the CPM (from State Route 60, to North Azusa Avenue, to East Gale Avenue to Bixby Drive, to the project site). The project owner shall submit any desired change to the approved delivery route to the CPM for review and approval.	Submit copies of the required transportation route limitation direction to the CPM for review and approval.	At least 60 days prior to receipt of any hazardous materials on site	Complete	Submitted to CEC 7/26/2012

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HAZ-08	PC	Prepare a site-specific Construction Site Security Plan for the construction phase and make it available to the CPM for review and approval. The Construction Security Plan shall include the detailed information described in the Condition.	Notify the CPM that a site-specific Construction Security Plan is available for review and approval.	At least thirty 30 days prior to commencing construction	Complete	Approved by CEC on 4/28/11
HAZ-09	CONS	In order to determine the level of security appropriate for this power plant, the project owner shall prepare a Vulnerability Assessment and submit that assessment as part of the Operations Security Plan to the CPM for review and approval. The project owner shall also prepare a site-specific Security Plan for the operational phase and shall be made available to the CPM for review and approval. The project owner shall implement site security measures addressing physical site security and hazardous materials storage. The level of security to be implemented will be determined by the results of the Vulnerability Assessment but in no case shall the level of security be less than that described as below (as per NERC 2002). See HAZ-9 for complete details on plan content and additional provisions.	Notify the CPM that a site-specific Vulnerability Assessment and Operations Site Security Plan are available for review and approval.	At least 30 days prior to the initial receipt of hazardous materials on- site	Complete	Notification submitted to CEC 8/24/2012
LAND-01	PC	The Project Owner shall prepare a site development plan that demonstrates review of and compliance with applicable design criteria and performance standards set forth in the City of Industy's zoning ordinance.	Submit to the Compliance Project Manager (CPM) written documentation including evidence of review by the City of Industry that the project conforms with the Development Plan Standards of the City of Industry's Development Guidelines (City Code Section 17.03.060).	At least 60 days prior to the start of construction	Complete	Approved by CEC on 4/25/11
MECH-01a	PC	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 QA/QC procedures.	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 the applicable LORS, and shall send the CPM a copy of the transmittal letter in the next Monthly Compliance Report.	At least 30 days (or project owner and CBO approved alternative timeframe) prior to the start of any increment of major piping or plumbing construction	Complete	CBO approval provided to CEC CPM on 5/26/11
MECH-01b	CONS	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.	Submit required documentation in MCR.	Include in MCR	Complete	Construction is complete; final MCR submitted 6/14/2013
MECH-01c	CONS	Upon completion of construction of any such major piping or plumbing system, the project owner shall request the CBO's inspection approval of said construction [2001 CBC, Section 106.3.2, Submittal Documents; Section 108.3, Inspection Requests; Section 108.4, Approval Required; 2001 California Plumbing Code, Section 103.5.4, Inspection Request; Section 301.1.1, Approval].	The responsible mechanical engineer shall stamp and sign all plans, drawings and calculations for the major piping and plumbing systems subject to the CBO design review and approval, and submit a signed statement to the CBO when the said proposed piping and plumbing systems have been designed, fabricated and installed in accordance with all of the applicable laws, ordinances, regulations and industry standards.	Upon completion of construction	Complete	Submitted to CBO 5/10/2013
MECH-02a	CONS	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 the 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 said installation [2001 CBC, Section 108.3, Inspection Requests]. See MECH-2 for specific references and additional requirements.		At least 30 days (or project owner and CBO approved alternative timeframe) prior to the start of on-site fabrication or installation of any pressure vessel	Complete	See Master Drawing List (Attachment C-1 in MCR)
MECH-02b	CONS	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.	Include in MCR.	Include in MCR	Complete	Construction is complete; final MCR submitted 6/14/2013

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МЕСН-03	CONS	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 said 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 [2001 CBC, Section 108.7, Other Inspections; Section 106.3.4, Architect or Engineer of Record].	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.	At least 30 days (or project owner and CBO approved alternative timeframe) prior to the start of construction of any HVAC or refrigeration system	Complete	Submitted to CBO on 3/26/2012; transmittal letters included in Attachment C of MCR
NOISE-01	РС	Notify all residents within one-half mile of the site and the linear facilities, by mail or other effective means, of the commencement of project 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 construction and operation of the project. 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.	Transmit to the CPM a statement, signed by the project owner's project manager, stating that the above notification has been performed, and describing the method of that notification, verifying that the telephone number has been established and posted at the site, and giving that telephone number.	At least 15 days prior to the start of ground disturbance	Complete	Approved by CEC on 5/18/11
NOISE-02a	CONS	Throughout the construction and operation of the WCEP, the project owner shall document, investigate, evaluate, and attempt to resolve all project- related noise complaints. The project owner or authorized agent shall: 1. Use the Noise Complaint Resolution Form, or its equivalent, to document and respond to each noise complaint; 2. Attempt to contact the person(s) making the noise complaint within 24 hours; 3. Conduct an investigation to determine the source of noise related to the complaint; 4. If the noise is project related, take reasonable measures as acceptable to the CPM to reduce the noise at its source; and 5. 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, file a copy of the Noise Complaint Resolution Form, with the local jurisdiction and the CPM, documenting the resolution of the complaint. If mitigation is required to resolve a complaint, and the complaint is not resolved within a 3-day period, the project owner shall submit an updated Noise Complaint Resolution Form when the mitigation is implemented.	Within 5 days of receiving a noise complaint	Complete	Construction is complete as of 5/1 - no noise complaints received.
NOISE-02b	OPS	Throughout the construction and operation of the WCEP, the project owner shall document, investigate, evaluate, and attempt to resolve all project-related noise complaints. The project owner or authorized agent shall: 1. Use the Noise Complaint Resolution Form, or its equivalent, to document and respond to each noise complaint; 2. Attempt to contact the person(s) making the noise complaint within 24 hours; 3. Conduct an investigation to determine the source of noise related to the complaint; 4. If the noise is project related, take reasonable measures as acceptable to the CPM to reduce the noise at its source; and 5. 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, file a copy of the Noise Complaint Resolution Form, with the local jurisdiction and the CPM, documenting the resolution of the complaint. If mitigation is required to resolve a complaint, and the complaint is not resolved within a 3-day period, the project owner shall submit an updated Noise Complaint Resolution Form when the mitigation is implemented.	Within 5 days of receiving a noise complaint	As required	
NOISE-03	PC	The Project Owner shall submit to the CPM for review and approval a noise control program. The noise control program must comply with applicable OSHA and Cal-OSHA standards.	Submit to the CPM the noise control program. The project owner shall make the program available to Cal-OSHA upon request.  Page 19 of 34	At least 30 days prior to the start of ground disturbance	Complete	Approved by CEC on 4/29/11 Updated 02-25-2019

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Cond. #	Phase	Description of Condition of Certification	Verification Requirement	Submittal Deadline to CEC	Projected Completion Date	Status/ Comments
NOISE-04a	сомм	The project design and implementation shall include appropriate noise mitigation measures adequate to ensure that operation of the project will not cause noise levels attributable to plant operation, during the four quietest consecutive hours of the nighttime, to exceed and average of 52 dBA measured near the intersection of Fieldgate Avenue and Folger Street (monitoring location M2) and near the intersection of Inyo Street and Roxham Avenue (monitoring location M4). See Noise-4 for complete details on provisions specific to this condition.	The survey shall take place within 30 days of the project first achieving a sustained output of 90 percent or greater of rated capacity.	Within 30 days of reaching 90% rated capacity	Complete	Survey Completed
NOISE-04b	СОММ	The project owner shall submit a summary report of the survey to the CPM. Included in the survey report will 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.		Within 15 days after completing the survey	Complete	Submitted to CPM 5/29/2013
NOISE-04c	сомм	When the measures of <b>NOISE-04b</b> are in place, the project owner shall repeat the noise survey.	Submit to the CPM a summary report of the new noise survey, performed as described above and showing compliance with this condition.	Within 15 days of completion of the new survey	As Needed	
NOISE-05	сомм	Following the project first achieving a sustained output of 90 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 (Article 105) 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.	Submit the noise survey report to the CPM. The project owner shall make the report available to OSHA and Cal-OSHA upon request by OSHA or Cal-OSHA.	Within 30 days after completing the survey	Complete	Submitted to CPM 6/7/2013
NOISE-06	PC	Heavy equipment operation and noisy construction work relating to any project features shall be restricted to the times of day delineated below, unless a special permit has been issued by the City Director of Public Works: Any Day: 7 a.m. to 8 p.m. Haul trucks and other engine-powered equipment shall be equipped with adequate mufflers.	Transmit to the CPM a statement acknowledging that the above restrictions will be observed throughout the construction of the project.	Prior to ground disturbance	Complete	Appproved by CEC on 5/10/11
NOISE-07a	OPS	In the event that a legitimate nighttime noise complaint under Noise Condition NOISE-2 is made by an owner of an existing residence located near monitoring locations M2 and M4 but not resolved by off-site mitigation to the verified satisfaction of the complainant or by on-site mitigation to the satisfaction of the CPM and the CPM determines the project was operating during the four quietest consecutive hours of the nighttime (0100 to 0500) and the noise attributable to such operation was greater than 49 dBA at the complainant's residence, the Project Owner shall limit such operation during the four quietest consecutive hours of the nighttime (0100 to 0500) so that the noise attributable to the project is no more than 49 dBA at the complainant's residence. The limitation on project operation shall not apply if the project is dispatched to avoid or during a Cal-ISO-declared Electrical Emergency, as determined by the Cal-ISO.	Notify by mail all residents within 1,750 feet of the project boundary of the start of commercial operation. The notice shall inform residents of the Noise Complaint Resolution process under Condition of Certification NOISE-2.	15 days prior to commercial operation	Complete	Letters mailed to residents 4/12/13 Copy provided to CEC CPM 4/18/13
NOISE-07b	OPS	Within 10 days of the CPM determining that a complaint is legitimate and the project was operating during the four quietest consecutive hours of the nighttime in excess of 49 dBA at the complainant's residence, the project owner shall limit project operation during the four quietest consecutive hours of the nighttime (0100 to 0500) so that noise attributable to project operation does not exceed 49 dBA.	Project owner shall limit project operation during the four quietest consecutive hours of the nighttime (0100 to 0500) so that noise attributable to project operation does not exceed 49 dBA.	Within 10 days of the CPM determining that a complaint is legitimate	As required	

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NOISE-07c	OPS	If the project is dispatched to operate during the four quietest hours of the nighttime (0100 to 0500) to avoid, or during, a Cal-ISO declared emergency, verification of Cal-ISO's determinations shall be provided to the CPM within 3 business days after the actual or pending electrical emergency.	The form of the verification shall be a Cal-ISO Alert Warning and Emergency Notice (AWE Notice) for Southern California documenting such actual or pending electrical emergency.	Within 3 business days after actual or pending electrical emergency	As required	
PAL-01a	PC	The Project Owner shall provide the CPM with the resume and qualifications of the 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, then the project owner shall obtain CPM approval of the replacement PRS.	The project owner shall submit to the CPM to keep on file, resumes of the qualified Paleontological Resource Monitors (PRMS). If a PRM is replaced, the resume of the replacement PRM shall also be provided to the CPM. The project owner shall also C87ensure that the PRS obtains qualified paleontological resource monitors to monitor as he or she deems necessary on the project.	At least 60 days prior to start of ground disturbance	Complete	Approved by CEC on 4/7/11
PAL-01b	PC	The PRS or project owner shall provide a letter with resumes naming anticipated monitors for the project and stating that the identified monitors meet the minimum qualifications for paleontological resource monitoring required by the condition.	Provide the required letter to the CPM. If additional monitors are obtained during the project, the PRS shall provide additional letters and resumes to the CPM. The letter shall be provided to the CPM no later than one week prior to the monitor beginning on-site duties.	At least 20 days prior to ground disturbance	Complete	Approved by CEC on 4/7/11
PAL-01c	CONS	Prior to the termination or release of a PRS, the project owner shall submit the resume of the proposed new PRS to the CPM for review and approval.	Submit the resume of the proposed new PRS to the CPM for review and approval.	As required	Complete	Construction is complete as of 5/1 - no additional PRS will be needed
PAL-02a	PC	The Project Owner shall provide to the PRS and the CPM, for approval, maps and drawings showing the footprint of the power plant, construction laydown areas and all related facilities. Maps shall identify all areas of the project where ground disturbance is anticipated.	Provide the maps and drawings to the PRS and CPM.	At least 30 days prior to the start of ground disturbance	Complete	Approved by CEC on 5/20/11
PAL-02b	CONS	If there are changes to the footprint of the project, revised maps and drawings shall be provided to the PRS and CPM.	Provide the required documentation to the CPM.	At least 15 days prior to the start of ground disturbance	Complete	Submitted 7/20/11
PAL-02c	CONS	If there are changes to the scheduling of the construction phases, the project owner shall inform the PRS and submit an updated schedule to the CPM within 5 days of identifying the changes.	Provide the required documentation to the CPM.	Within 5 days of identifying any changes to the scheduling of construction phases	Complete	Construction is complete as of 5/1
PAL-03	PC	Ensure that the PRS prepares, and the project owner submits to the CPM for review and approval, a PRMMP to identify general and specific measures to minimize potential impacts to significant paleontological resources. Approval of the PRMMP by the CPM shall occur prior to any ground disturbance. The PRMMP shall be developed in accordance with the guidelines of the Society of Vertebrate Paleontology (SVP, 1995) and shall include, but not be limited to, the items in the condition.	Provide a copy of the PRMMP to the CPM. The PRMMP shall include an affidavit of authorship by the PRS, and acceptance of the PRMMP by the project owner evidenced by a signature.	At least 30 days prior to ground disturbance	Complete	Approved by CEC on 4/28/11
PAL-04a	PC	Prior to ground disturbance and for the duration of construction activities involving ground disturbance deeper than 5 feet, the project owner and the PRS shall prepare and conduct weekly CPM-approved training for project managers, construction supervisors, foremen, and general workers who are involved with or operate ground disturbing equipment or tools. Workers shall not excavate in sensitive units prior to receiving CPM-approved worker training.	Submit the proposed WEAP including the brochure with the set of reporting procedures the workers are to follow, and submit the script and final video to the CPM for approval if the project owner is planning on using a video for interim training. No ground disturbance shall occur prior to CPM approval of the Worker Environmental Awareness Program (WEAP), unless specifically approved by the CPM.	At least 30 days prior to ground disturbance	Complete	Approved by CEC on 5/18/11
PAL-04b	CONS	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 or video) offered that month. The MCR shall also include a running total of all persons who have completed the training to date.	Provide WEAP Certification of Completion forms and running total of all persons who have completed the training to date in MCR.	Include in MCR	Complete	Construction is complete; final MCR submitted 6/14/2013

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PAL-04c	CONS	If the owner requests an alternate paleontological trainer, the resume and qualifications of the trainer shall be submitted to the CPM for review and approval prior to installation of an alternate trainer. Alternate trainers shall not conduct training prior to CPM authorization.	Submit qualifications of trainer to CPM for review and approval.	Prior to installation of alternate trainer	Complete	Construction is complete as of 5/1 - no alternate paleo trainer needed
PAL-05a		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 potentially 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 halt 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. See PAL-5 for additional requirements.	Ensure that the PRS submits the summary of monitoring and paleontological activities in the MCR.	Include in MCR	Complete	Construction is complete; final MCR submitted 6/14/2013
PAL-05b	CONS	When feasible, the CPM shall be notified 10 days in advance of any proposed changes in monitoring different from the plan identified in the PRMMP. If there is any unforeseen change in monitoring, the notice shall be given as soon as possible and must be approved by the CPM prior to implementation of the change.	Notify CPM of changes in monitoring.	10 days in advance of any proposed changes in monitoring	Complete	Construction is complete as of 5/1
PAL-06		The project owner, through the designated PRS, shall ensure that all components of the PRMMP are adequately performed including collection of fossil materials, preparation of fossil materials for analysis, analysis of fossils, identification and inventory of fossils, the preparation of fossils for curation, and the delivery for curation of all significant paleontological resource materials encountered and collected during the project construction.	Maintain in their compliance file copies of signed contracts or agreements with the designated PRS and other qualified research specialists. The project owner shall maintain these files for a period of three years after completion and approval of the CPM-approved Paleontological Resource Report (See PAL-7). The project owner shall be responsible to pay any curation fees charged by the museum for fossils collected and curated as a result of paleontological mitigation. A copy of the letter of transmittal submitting the fossils to the curating institution shall be provided to the CPM.	From retention of PRS until 3 years after project completion and approval of PRR	TBD	Pending CEC Approval of PAL-07
PAL-07		The project owner shall ensure preparation of the Paleontological Resources Report (PRR) by the designated PRS. The PRR shall be prepared following completion of the ground disturbing activities. The PRR shall include an analysis of the collected fossil materials and related information and submitted to the CPM for review and approval. The report shall include, but is not limited to, a description and inventory of recovered fossil materials; a map showing the location of paleontological resources encountered; determinations of sensitivity and significance; and a statement by the PRS that project impacts to paleontological resources have been mitigated below the level of significance.	After completion of ground disturbing activities, including landscaping, submit the Paleontological Resources Report under confidential cover to the CPM.	Within 90 days after completion of ground disturbing activities, including landscaping	Pending CEC Approval	Submitted 7/30/2013.
PUBLIC HEALTH-01	сомм	The project owner shall develop and implement a Cooling Water Management Plan to ensure that the potential for bacterial growth in cooling water is controlled. The Plan shall be consistent with either Staff's "Cooling Water Management Program Guidelines" or with the Cooling Technology Institute's "Best Practices for Control of Legionella" guidelines.	Provide the Cooling Water Management Plan to the CPM for review and approval	At least 30 days prior to the commencement of cooling tower operations	Complete	Submitted to CPM 9/25/2012

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STRUC-01a	PC	Prior to the start of any increment of construction of any major structure or component listed in Facility Design Table 1 of Condition of Certification GEN-2, 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 including: Major project structures; Major foundations, equipment supports and anchorage; and large field fabricated tanks. Construction of any structure or component shall not commence until the CBO has approved the lateral force procedures to be employed in designing that structure or component.	Submit to the CBO the above final design plans, specifications and calculations, with a copy of the transmittal letter to the CPM.	At least 60 days (or project owner and CBO approved alternative timeframe)	Complete	CBO approval provided to CEC CPM on 5/26/11
STRUC-01b	CONS	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 are in compliance with the requirements set forth in the applicable engineering LORS.	Include the required documentation in the MCR.	Include in MCR	Complete	Construction is complete; final MCR submitted 6/14/2013
STRUC-02a	CONS	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: concrete cylinder strength test reports, concrete pour sign-off sheets, bolt torque inspection reports, field weld inspection reports, and reports covering other structural activities requiring special inspections. See STRUC-2 for related details.	Submit required documentation to CBO.	Following completion of subject work	Complete	Construction is complete as of 5/1
STRUC-02b	CONS	If a discrepancy is discovered in any of the submitted data, 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 [2001 CBC, Chapter 17, Section 1701.3, Duties and Responsibilities of the Special Inspector]. The NCR shall reference the Condition(s) of Certification and the applicable CBC chapter and section. 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.	Submit required documentation to CBO and CPM.	Within 5 days of discovery of a discrepancy	Complete	Construction is complete as of 5/1
STRUC-02c	CONS	Transmit a copy of the CBO's approval or disapproval of the corrective action to the CPM within 15 days. If disapproved, the project owner shall advise the CPM, within five days, the reason for disapproval, and the revised corrective action to obtain CBO's approval.	Submit required documentation to CPM.	Within 15 days of CBO approval or disapproval of corrective action	Complete	Construction is complete as of 5/1
STRUC-03a	CONS	The project owner shall submit to the CBO design changes to the final plans required by the 2001 CBC, Chapter 1, Section 106.3.2, Submittal documents and Section 106.3.3, Information on plans and specifications, 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.	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.	On schedule suitable to CBO	Complete	Construction is complete as of 5/1
STRUC-03b	CONS	The project owner shall notify the CPM, via the Monthly Compliance Report, when the CBO has approved the revised plans.	Notify CPM of CBO approval of revised plans.	Include in MCR	Complete	Construction is complete; final MCR submitted 6/14/2013
STRUC-04a	CONS	Tanks and vessels containing quantities of toxic or hazardous materials exceeding amounts specified in Chapter 3, Table 3-E of the 2001 CBC shall, at a minimum, be designed to comply with the requirements of that Chapter.		At least 30 days (or project owner and CBO approved alternate timeframe) prior to the start of installation of the tanks or vessels containing the above specified quantities of toxic or hazardous materials	Complete	See Master Drawing List
STRUC-04b	CONS	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.	Include in MCR.	Include in MCR	Complete	Construction is complete; final MCR submitted 6/14/2013

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Cond. #	Phase	Description of Condition of Certification	Verification Requirement	Submittal Deadline to CEC	Projected Completion Date	Status/ Comments
TLSN-01	CONS	The project owner shall construct the proposed transmission lines according to the requirements of California Public Utility Commission's GO-95, GO-52, GO-131-D, Title 8, and Group 2. High Voltage Electrical Safety Orders, Sections 2700 through 2974 of the California Code of Regulations, and Southern California Edison's EMF-reduction guidelines.	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.	At least thirty days before starting construction of the transmission line or related structures and facilities	Complete	Submitted to CEC 2/24/2012
TLSN-02	OPS	The project owner shall ensure that every reasonable effort will be made to identify and correct, on a case-specific basis, any complaints of interference with radio or television signals from operation of the project-related lines and associated switchyards. The project owner shall maintain written records for a period of five years, of all complaints of radio or television interference attributable to plant operation together with the corrective action taken in response to each complaint. All complaints shall be recorded to include notations on the corrective action taken. Complaints not leading to a specific action or for which there was no resolution should be noted and explained. The record shall be signed by the project owner and also the complainant, if possible, to indicate concurrence with the corrective action or agreement with the justification for a lack of action.	All reports of line-related complaints shall be summarized for the project-related lines and included during the first five years of plant operation in the Annual Compliance Report.	Include in ACR	2/28/2019	2018 ACR Due 2/28/2019
TLSN-03a	CONS	The project owner shall hire a qualified consultant to measure the strengths of the electric and magnetic fields from the line before and after it is energized. The measurements shall be made according to the American National Standard Institute/Institute of Electrical and Electronic Engineers (ANSI/IEEE) standard procedures at the locations of maximum field strengths along the proposed route. These measurements shall be completed not later than six months after the start of operations.	File copies of the pre-energization measurements with the CPM.	Within 60 days after completion of the measurements.	Complete	Pre-energization measurements taken on 9/10/2012 Measurements submitted to CEC on 11/9/2012
TLSN-03b	CONS	The project owner shall hire a qualified consultant to measure the strengths of the electric and magnetic fields from the line before and after it is energized. The measurements shall be made according to the American National Standard Institute/Institute of Electrical and Electronic Engineers (ANSI/IEEE) standard procedures at the locations of maximum field strengths along the proposed route. These measurements shall be completed not later than six months after the start of operations.	File copies of post-energization measurements with the CPM.	Within 60 days after completion of the measurements.	Complete	Post-energization measurements collected 4/2 Measurements submitted to CEC CPM 5/28/13
TLSN-04	OPS	The project owner shall ensure that the rights-of-way of the proposed transmission line 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 and provide such summaries in the Annual Compliance Report.	Include in ACR	2/28/2019	Projected completion date assumes first ACR will be submitted for the 2013 calendar year.
TLSN-05	сомм	The project owner shall ensure that all permanent metallic objects within the right of-way of the project-related lines are grounded according to industry standards regardless of ownership. In the event of a refusal by any property owner to permit such grounding, the project owner shall so notify the CPM. Such notification shall include, when possible, the owner's written objection. Upon receipt of such notice, the CPM may waive the requirement for grounding the object involved.	Transmit to the CPM a letter confirming compliance with this Condition.	At least 30 days before the lines are energized	Complete	
TRANS-01	CONS	Prior to any ground disturbance within the public right-of-way (e.g.,highway, road, bicycle path, pedestrian path), the project owner or its contractor(s) shall secure an encroachment permit demonstrating compliance with the applicable requirements of the City of Industry, the County of Los Angeles (if applicable), and Caltrans (if applicable) for encroachment into the public right-of-way.	Provide to the CPM copies of the encroachment permit(s) issued/approved by the City of Industry Engineering Department, the Los Angeles County Department of Public Works, and/or Caltrans. In addition, the project owner shall retain copies of the issued/approved permit(s) and supporting documentation in its compliance file for a minimum of 180 calendar days after the start of commercial operation.	Prior to ground disturbance in public right-of-way	Complete	Construction is complete as of 5/1; no encroachment permits were required during construction

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TRANS-02a	PC	The project owner shall comply with the applicable parking standards of the City of Industry, and the County of Los Angeles (if applicable). The project owner shall prepare and submit to the CPM for approval a parking plan(s) for the construction phase of the project in consultation with the City of Industry Engineering and Planning Departments, the Los Angeles County Department of Public Works (if applicable), and the Los Angeles County Fire Department (if applicable).	Submit the proposed parking plan to the City of Industry Engineering and Planning Departments, the Los Angeles County Department of Public Works, and the Los Angeles County Fire Department for review and comment.	30 days prior to submitting final plan to CEC CPM	Complete	Comments received and included in TRANS-02b submittal.
TRANS-02b	PC	Provide a copy of the construction phase parking plan to the CPM for review and approval.	Submit the required plan to the CPM for review and approval. The project owner shall provide to the CPM a copy of the transmittal letter submitted to the City of Industry Engineering and Planning Departments, the Los Angeles County Department of Public Works, and the Los Angeles County Fire Department requesting their review of the parking plan. The project owner shall provide any comment letters to the CPM for review.	At least 30 calendar days prior to site mobilization	Complete	Approved by CEC 5/12/11
TRANS-02c	OPS	Provide a copy of the operation phase parking plan to the CPM for review and approval.	Submit the required plan to the CPM for review and approval.	At least 60 calendar days prior to the start of commercial operation	Pending CEC Approval	Submitted 3/8/2013
TRANS-03a	PC	The project owner shall prepare a construction traffic control and implementation plan for the project and its associated facilities. See TRANS-03 for details.	Submit the proposed traffic control and implementation plan to the City of Industry Engineering and Planning Departments, the Los Angeles County Department of Public Works, and Caltrans for review and comment. The project owner shall provide to the CPM a copy of the transmittal letter submitted to the City of Industry Engineering and Planning Department, the Los Angeles County Department of Public Works, and Caltrans requesting their review of the traffic control and implementation plan. The project owner shall provide any comment letters to the CPM for review.	30 days prior to submitting final plan to CEC CPM	Complete	City, County and Caltrans provided comments; sent to CEC on 5/5/11
TRANS-03b	PC	Provide a copy of the traffic control and implementation plan to the CPM for review and approval.	Submit the required plan to the CPM for review and approval. The project owner shall provide to the CPM a copy of the transmittal letter submitted to the City of Industry Engineering and Planning Department, the Los Angeles County Department of Public Works, and Caltrans requesting their review of the traffic control and implementation plan. The project owner shall provide any comment letters to the CPM for review.	At least 30 calendar days prior to site mobilization	Complete	Approved by CEC 5/6/11
TRANS-04a	РС	The project owner shall repair to original or near original condition affected public rights-of-way (e.g., highway, road, bicycle path, pedestrian path) that have been damaged due to construction activities conducted for the project and its associated facilities. Prior to start of site mobilization, the project owner shall notify the City of Industry Engineering Department, and the Los Angeles County Department of Public Works (if applicable), and Caltrans (if applicable) about their schedule for project construction. The purpose of this notification is to request the City of Industry Engineering Department, and the Los Angeles County Department of Public Works (if applicable), and Caltrans (if applicable) to consider postponement of public right-of-way repair or improvement activities until after project construction has taken place and to coordinate construction-related activities.	Photograph, or videotape the following public right-of-way segment(s) (includes intersections): South Azusa Avenue, East Gale Avenue, and Bixby Drive. The project owner shall provide the CPM, the City of Industry Engineering Department, and the Los Angeles County Department of Public Works with a copy of these images.	Prior to the start of site mobilization	Complete	Approved by CEC 5/12/11
TRANS-04b	CONS	The project owner shall meet with the CPM, the City of Industry Engineering Department, the Los Angeles County Department of Public Works, and Caltrans to identify sections of public right-of-way to be repaired, to establish a schedule to complete the repairs and to receive approval for the action(s). Following completion of any public right-of-way repairs, the project owner shall provide to the CPM a letter signed by the City of Industry Engineering Department, and the Los Angeles County Department of Public Works, and Caltrans stating their satisfaction with the repairs.	Provide the required letter to the CPM.	Within 60 calendar days after completion of construction	Complete	Submitted 6/19/2013.

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Cond. #	Phase	Description of Condition of Certification	Verification Requirement	Submittal Deadline to CEC	Projected Completion Date	Status/ Comments
TRANS-05	OPS	Prior to the start of commercial operation the project owner shall submit written notification to the Los Angeles County Sheriff's Department Aero Bureau informing them of the start of commercial operation date for the power plant, and advising it that potential turbulence caused by thermal plumes emitted from the power plant's cooling towers and combustion turbine generator stacks may adversely affect aircraft flying directly over the power plant below an elevation of 500 feet above ground level. The project owner shall provide a copy of the Los Angeles County Sheriff's Department Aero Bureau written comments, if any, to the CPM for review.	Prior to the start of commerical operation, the project owner shall provide to the CPM a copy of the transmittal letter submitted to the Los Angeles County Sheriff's Department Aero Bureau. The project owner shall provide any written comment(s) received on the written notification from the Los Angeles County Sheriff's Department Aero Bureau to the CPM for review.	At a time prior to the start of commerical operation	Complete	Notification submitted to LA County Sheriff Aero Bureau and CEC 4/18/2013
TSE-01a	CONS	The project owner shall furnish to the Compliance Project Manager (CPM) and to the Chief Building Official (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.	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.	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	Complete	Approved by CBO
TSE-01b	CONS	The project owner shall provide schedule updates in the Monthly Compliance Report.	Include in MCR.	Include in MCR	Complete	Construction is complete; final MCR submitted 6/14/2013
TSE-02a	CONS	Prior to the start of construction the project owner shall assign an electrical engineer and at least one of each of the following to the project: A) a civil engineer; B) a geotechnical engineer or a civil engineer experienced and knowledgeable in the practice of soils engineering; C) 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; or D) a mechanical engineer. (Business and Professions Code Sections 6704 et seq. require state registration to practice as a civil engineer or structural engineer in California.) See TSE-02 for details on scope of duties.	Submit to the CBO for review and approval, the names, qualifications and registration numbers of all the responsible engineers assigned to the project. The project owner shall notify the CPM of the CBO's approvals of the engineers within five days of the approval.	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 rough grading	Complete	Approved by CBO
TSE-02b	CONS	If the designated responsible engineer is subsequently reassigned or replaced, the project owner has five days in which to submit the name, qualifications, 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.	Within 5 days of replacement	Complete	Construction is complete as of 5/1 - assignment of additional responsible engineer not needed
TSE-03	CONS	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 corrective action. (2001 California Building Code, Chapter 1, Section 108.4, Approval Required; Chapter 17, Section 1701.3, Duties and Responsibilities of the Special Inspector; Appendix Chapter 33, Section 3317.7, Notification of Noncompliance). The discrepancy documentation shall become a controlled document and shall be submitted to the CBO for review and approval and shall reference this condition of certification.	Submit a copy of the CBO's approval or disapproval of any corrective action taken to resolve a discrepancy to the CPM within 15 days of receipt. If disapproved, the project owner shall advise the CPM, within five days, the reason for disapproval, and the revised corrective action required to obtain the CBO's approval.	Within 15 days of CBO approval or disapproval of corrective action	Complete	Construction is complete as of 5/1
TSE-04a	CONS	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.	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.	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	Complete	
TSE-04b	CONS	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 fo rapproval, and still to be submitted.	Send the CPM a copy of the transmittal letter in the next Monthly Compliance Report.	Include in MCR	Complete	Construction is complete; final MCR submitted 6/14/2013

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Cond. #	Phase	Description of Condition of Certification	Verification Requirement	Submittal Deadline to CEC	Projected Completion Date	Status/ Comments
TSE-05a	CONS	The project owner shall ensure that the design, construction and operation of the owner's 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 as determined by the CBO. See TSE-05 for details on required drawings and calcs. Inform the CBO and the CPM of any impending changes which may not conform to the facilities described in this condition and request approval to implement such changes.	Submit to the CBO for approval: a) Design drawings, specifications and calculations 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" 1 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 the standards outlined in the condition. c) Electrical one-line diagrams signed and sealed by the registered professional electrical engineer in responsible charge, a route map, and an engineering description of equipment and the configurations covered by requirements TSE-5 a) through f) above. d) The final DFS, including a description of facility upgrades, operational mitigation measures, and/or SPS sequencing and timing if applicable, shall be provided concurrently to the CPM.	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)	Complete	See TSE Master Drawing List (Attachment C-2 in MCR)
TSE-05b	CONS	Project owner shall inform the CBO and the CPM of any impending changes which may not conform to the facilities described in this condition and request approval to implement such changes.	Inform the CBO and CPM.	At least 60 days prior to the construction of transmission facilities	Complete	See TSE Master Drawing List (Attachment C-2 in MCR)
TSE-06a	сомм	The project owner shall provide the following Notice to the California Independent System Operator prior to synchronizing the facility with the California transmission system:1) At least one week prior to synchronizing the facility with the grid for testing, provide the CAL ISO with a letter stating the proposed date of synchronization; and 2) at least one business day prior to synchronizing the facility with the grid for testing, provide telephone notification to the ISO Outage Coordination Department.	Provide copies of the CAL ISO letter to the CPM when it is sent to the CAL ISO.	One week prior to initial synchronization with the grid	Complete	Letter submitted to CAL ISO and CEC 12/12/2012
TSE-06b	сомм	The project owner shall contact the CAL ISO Outage Coordination Department, Monday through Friday, between the hours of 0700 and 1530 at (916) 351-2300 prior to synchronizing the facility with the grid for testing.	A report of conversation with the CAL ISO shall be provided electronically to the CPM.	At least one business day prior to synchronizing the facility with the grid for testing	Complete	Notification made to CAL ISO 12/28/2012 Record of conversation with CAL ISO sent to CEC 12/28/2012
TSE-07	сомм	The project owner shall be responsible for the inspection of the owner's transmission facilities during and after project construction, and any subsequent CPM and CBO approved changes thereto, to ensure conformance with 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", CAL ISO standards, National Electric Code (NEC) and related industry standards. In case of non-conformance, the project owner shall inform the CPM and CBO in writing, within 10 days of discovering such non-conformance and describe the corrective actions to be taken.	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 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", CAL ISO standards, National Electric Code (NEC) and related industry standards. 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.	Within 60 days after first	Pending CEC/CBO Approval	Submitted 2/26/2013  CBO provided comments  Resubmitted 5/16/2013

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Cond. #	Phase	Description of Condition of Certification	Verification Requirement	Submittal Deadline to CEC	Projected Completion Date	Status/ Comments
VIS-01a	CONS	The project owner shall color and finish the surfaces of all project structures and buildings visible to the public to ensure that they: (1) minimize visual intrusion and contrast by blending with the landscape; (2) minimize glare; and (3) comply with local design policies and ordinances. The transmission line conductors shall be non specular and non-reflective, and the insulators shall be non-reflective and non-refractive. The project owner shall submit a surface treatment plan to the Compliance Project Manager (CPM) for review and approval. The project owner shall not request vendor final finish treatment of any buildings or structures during their manufacture, or perform final field treatment on any buildings or structures, until the project owner has received treatment plan approval by the CPM. The treatment plan shall include the subject matter detailed in this condition. See VIS-01 for details.	Submit the proposed treatment plan to the CPM for review and approval and simultaneously to the City of Industry Planning Department for review and comment. The project owner shall provide the CPM with the City's comments. 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.	At least 60 days prior to applying vendor color(s) and finish(es) for structures or buildings to be surface treated during manufacture	Pending CEC Approval	Comments from the CEC received 11/02/11 Revised submittal including administration, water treatment, and gas compressor buildings submitted 4/27/2012
VIS-01b	CONS	Notify the CPM that surface treatment of all listed structures and buildings has been completed and is ready for inspection; and shall submit one set of electronic color photographs from the Key Observation Points.	Notify the CPM.	Within 90 days after the start of commercial operation	Complete	Submitted 7/29/13
VIS-01c	OPS	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.	Include the required information in the ACR.	Include in ACR	2/28/2019	2018 ACR Due 2/28/2019
VIS-02a	CONS	The project owner shall ensure that lighting for construction of the power plant is used in a manner that minimizes potential night lighting impacts, as idenitifed in this condition. See VIS-02 for details.	Notify the CPM that the lighting is ready for inspection. If the CPM requires modifications to the lighting, the project owner shall implement the necessary modifications within 15 days of the CPM's request and notify the CPM that the modifications have been completed.	Within 7 days after the first use of construction lighting	Complete	Submitted 10/27/11
VIS-02b	CONS	Within 10 days of receiving a lighting complaint, the project owner shall provide the CPM with a complaint resolution form report as specified in the General Conditions section including a proposal to resolve the complaint, and a schedule for implementation.	The project owner shall notify the CPM within 10 days after completing implementation of the proposal. A copy of the complaint resolution form report shall be included in the subsequent Monthly Compliance Report following complaint resolution.	As required	As required	
VIS-03a	CONS	To the extent feasible, consistent with safety and security considerations and commercial availability, the project owner shall design and install all permanent exterior lighting such that a) obtrusive light and glare from on-site light fixtures is minimized from public viewing 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 plan complies with local policies and ordinances. The project owner shall submit a lighting management plan to the CPM for review and approval and simultaneously to the City of industry Planning Department for review and comment that includes the following. Subject matter to be addressed in the plan is detailed in VIS-3. See VIS 3 for details.	Contact the CPM to determine the required documentation for the lighting management plan. Submit to the CPM for review and approval and simultaneously to the City of Industry Planning Department for review and comment a lighting management plan. The project owner shall provide the City's comments to the CPM. 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 management plan.	At least 60 days prior to ordering any permanent exterior lighting	Complete	Confirmation of Approval of Lighting Management Plan (Turbines and Stacks only) received 6/19/2012  Confirmation of Approval of Lighting Management Plan Amendment (All Remaining Lighting) received 8/24/2012
VIS-03b	OPS	Prior to commercial operation, the project owner shall notify the CPM that the lighting has been completed and is ready for inspection.	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.	Prior to commercial operation	Complete	Notification provided to CEC 5/2/2013
VIS-03c	OPS	Within 10 days 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. A copy of the complaint resolution form report shall be submitted to the CPM within 30 days of complaint resolution.	Provide the complaint resolution form to the CPM.  Page 28 of 34	As required	As required	Updated 02-25-2019

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Cond. #	Phase	Description of Condition of Certification	Verification Requirement	Submittal Deadline to CEC	Projected Completion Date	Status/ Comments
VIS-04a	CONS	The project owner shall ensure that the cooling tower is designed and operated as certified. The cooling tower shall be designed and operated so that that the exhaust air flow rate per heat rejection rate (1) will not be less than 5.6 kilograms per second per megawatt when the ambient conditions are 20 degrees F and 60 percent relative humidity, (2) will not be less than 8.0 kilograms per second per megawatt when the ambient conditions are 59 degrees F and 60 percent relative humidity, and (3) will not be less than 8.9 kilograms per second per megawatt when the ambient conditions are 95 degrees F and 60 percent relative humidity. The project owner shall provide a cooling tower fogging frequency curve from the cooling tower manufacturer for this project's final cooling tower design.	Provide to the CPM for review the final design specifications of the cooling tower to confirm that design mass flow rates for the cooling tower cells meet these requirements. The project owner shall not order the cooling tower until notified by the CPM that this design requirement has been satisfied.	At least 90 days prior to ordering the cooling towers	Complete	Approved by CEC 6/02/11
VIS-04b	OPS	Provide written documentation in each Annual Compliance Report to demonstrate that the cooling towers have consistently been operated within the above- specified design parameters, except as necessary to prevent damage to the cooling tower.	Provide subject documentation in each ACR.	Include in ACR	2/28/2019	2018 ACR Due 2/28/2019
VIS-04c	OPS	If determined to be necessary to ensure operational compliance, based on legitimate complaints received or other physical evidence of potential non-compliant operation, the project owner shall monitor the cooling tower operating parameters in a manner and for a period as specified by the CPM.	For each period that the cooling tower operation monitoring is required, the project owner shall provide to the CPM the cooling tower operating data within 30 days of the end of the monitoring period. The project owner shall include with this operating data an analysis of compliance and shall provide proposed remedial actions if compliance cannot be demonstrated.	Within 30 days of end of monitoring period	As required	
VIS-05	CONS	The project owner shall remove all evidence of the laydown area and linear- facility construction activities and shall restore the ground surface to its original or better condition. Unless precluded by the project's configuration, the project owner shall replace any vegetation or paving removed or damaged during project construction. The project owner shall submit a surface restoration plan to the CPM for review and approval.	Submit the surface restoration plan to the CPM for review and approval. If the CPM notifies the project owner that revisions to the surface restoration plan are needed, the project owner shall submit a revised plan to the CPM within 30 days.	At least 60 days prior to the start of commercial operation	Complete	Submitted 3/8/2013
VIS-05b	CONS	The project owner shall complete surface restoration.	Complete the surface restoration.	Within 90 days after the start of commercial operation	Complete	Completed 5/17/13
VIS-05c	CONS	The project owner shall notify the CPM that the restoration is ready for inspection.	Notify the CPM that restoration is ready for inspection.	Within 7 days after completion of surface restoration	Complete	Submitted 7/30/13
WASTE-01	PC	The project owner shall provide the resume of a Registered Professional Engineer or Geologist, who shall be available for consultation during soil excavation and grading activities, to the CPM for review and approval. The resume shall show experience in remedial investigation and feasibility studies. The Registered PE or Geologist shall be given full authority by the project owner to oversee any earth moving activities that have the potential to disturb contaminated soil.	Submit resume to CPM for approval.	At least 30 days prior to the start of site mobilization	Complete	Original Submittal Approved by CEC 5/12/11 Replacement Submitted 10/31/2011
WASTE-02a	CONS	If potentially contaminated soil is unearthed during excavation at either the proposed site or linear facilities as evidenced by discoloration, odor, detection by handheld instruments, or other signs, the Registered Professional Engineer or Geologist shall inspect the site, determine the need for sampling to confirm the nature and extent of contamination, and file a written report to the project owner and CPM stating the recommended course of action.	Submit any final reports filed by the Registered Professional Engineer or Geologist to the CPM.	Within 5 days of receiving final report	Complete	Construction is complete as of 5/1; no contaminated soil was uncovered so no reports issued
WASTE-02b	CONS	Depending on the nature and extent of contamination, the Registered Professional Engineer or 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 Registered Professional Engineer or Geologist, significant remediation may be required, the project owner shall contact representatives of the Department of Toxic Substances Control for guidance and possible oversight.	Notify the CPM of any orders issued to halt construction.	Within 24 hours of any orders issued to halt construction	Complete	Construction is complete as of 5/1; no contaminated soil was uncovered during construction

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Cond. #	Phase	Description of Condition of Certification	Verification Requirement	Submittal Deadline to CEC	Projected Completion Date	Status/ Comments
WASTE-03a	PC	The project owner or construction contractor shall obtain a hazardous waste generator identification number from the Department of Toxic Substances Control prior to generating any hazardous waste during construction.	Apply for and obtain a Hazardous Waste ID # and submit to the CEC for review and approval.	Submit prior to receipt of NTP	Complete	Approved by CEC on 5/18/11
WASTE-03b	OPS	The project owner shall obtain a hazardous waste generator identification number prior to generating any hazardous waste during operations.	Apply for and obtain a Hazardous Waste ID # and submit to the CEC for review and approval.	Prior to COD	Complete	Updated to Walnut Creek LLC on 4/30/13
WASTE-04	OPS	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.	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 manner in which project-related wastes are managed.	Within 10 days of becoming aware of an impending enforcement action	As required	
WASTE-05a	PC	The project owner shall prepare a Construction Waste Management Plan for all wastes generated during construction and operation of the facility, respectively, and shall submit both plans to the CPM for review and approval. The plans shall contain, at a minimum, the information detailed in Waste-05.	Submit the Construction Waste Management Plan to the CPM for approval.	No less than 30 days prior to the start of site mobilization	Complete	Approved by CEC on 5/18/11
WASTE-05b	OPS	The Operation Waste Management Plan shall be submitted to the CPM.	The project owner shall submit any required revisions within 20 days of notification by the CPM.	No less than 30 days prior to the start of project operation for approval	Complete	Submitted to CEC 4/1/2011
WASTE-05c	OPS	In the Annual Compliance Reports, the project owner shall document the actual waste management methods used during the year and provide a comparison of the actual methods used to those the planned management methods proposed in the original Operation Waste Management Plan.	Include the required documentation in the ACR.	Include in ACR	2/28/2019	2018 ACR Due 2/28/2019
WASTE-06	PC	The project owner shall ensure that the site is properly characterized and remediated if necessary. The project owner shall ensure a work plan is developed following DTSC recommendations detailing the number and location of samples of soil, soil gas, and groundwater to be obtained and analyzed. The project owner shall assure this plan is submitted to the DTSC for review and comment, and to the CPM for review and approval. If contaminated soil is found to exist, the project owner shall assure that the City of Industry contacts DTSC for further guidance and possible oversight. In no event shall any project construction commence that involves either the movement of contaminated soil or construction on contaminated soil until the CPM has determined that all necessary remediation has been accomplished.	characterized and remediated to the CPM for review and approval.	At least 60 days prior to site mobilization; 2) DTSC copies to CPM within 10 days of receipt	Complete	Approved by CEC on 5/18/11
WASTE-07	OPS	The project owner shall ensure that the cooling tower sludge is tested pursuant to Title 22, California Code of Regulations, section 66262.10 and report the findings to the CPM.	The project shall include the results of sludge testing in a report provided to the CPM. If four consecutive tests show that the sludge is non-hazardous, the project owner may apply to the CPM to discontinue testing.	As required	Q2 2019	
WATER QUAL & SOILS- 01a	PC	Obtain CPM approval for a site-specific DESCP that ensures protection of water quality and soil resources of the WCEP site and all linear facilities for both the construction and operational phases of the project. This plan shall address appropriate methods and actions, both temporary and permanent, for the protection of water quality and soil resources, demonstrate no increase in off-site flooding potential, meet local requirements, and identify all monitoring and maintenance activities. The plan shall be consistent with the grading and drainage plan as required by Condition of Certification CIVIL-1 and may incorporate by reference any Storm Water Pollution Prevention Plan (SWPPP) developed in conjunction with any NPDES permit.	Submit a copy of the plan to the City Of Industry Public Works Department for review and comment.	No later than 90 days prior to start of site mobilization	Complete	Approved by CEC on 4/28/11
WATER QUAL & SOILS- 01b	PC	Submit the DESCP and comments to the CPM for review and approval.	Submit the plan and comments to the CPM for review and approval.	No later than 60 days prior to start of site mobilization	Complete	Approved by CEC on 4/28/11

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Cond. #	Phase	Description of Condition of Certification	Verification Requirement	Submittal Deadline to CEC	Projected Completion Date	Status/ Comments
WATER QUAL & SOILS- 01c	CONS	During construction, the project owner shall provide an analysis in the monthly compliance report on the effectiveness of the drainage, erosion and sediment control measures and the results of monitoring and maintenance activities. Once operational, the project owner shall provide in the annual compliance report information on the results of monitoring and maintenance activities demonstrating the adequacy of all BMPs.	Include the required documentation in the MCR.	Include in MCR	Complete	Construction is complete; final MCR submitted 6/14/2013
WATER QUAL & SOILS- 01c	OPS	Once operational, the project owner shall provide in the annual compliance report information on the results of monitoring and maintenance activities demonstrating the adequacy of all BMPs.	Include the required documentation in the ACR.	Include in ACR	2/28/2019	2018 ACR Due 2/28/2019
WATER QUAL & SOILS- 02a	PC	The project owner shall comply with the requirements of the NPDES Permit for Discharges of Storm water Associated with Construction Activity. The project owner shall develop and implement a Construction SWPPP for the entire WCEP site, lay down area, and all linear facilities.	Submit the Construction SWPPP to the CBO and CEC for revew and approval.	No later than 60 days prior to start of site mobilization	Complete	Approved by CEC on 5/23/11
WATER QUAL & SOILS- 02b	PC	Submit copies to the CPM of all correspondence between the project owner and the RWQCB about the General NPDES permit for the Discharge of Storm water Associated with Construction Activities.	This information shall include copies of the Notice of Intent and Notice of Termination for the project. The project owner shall notify the CPM of any reported non-compliance with the Construction SWPPP.	Within 10 days of sending or receiving correspondence	Complete	CBO approval provided to CEC CPM on 5/26/11
WATER QUAL & SOILS- 02c	PC	The project owner shall comply with the requirements of the NPDES Permit for Discharges of Stormwater Associated with Construction Activity. The project owner shall develop and implement a Construction SWPPP for the entire WCEP site, lay down area, and all linear facilities.	Submit an electronic copy of the final Construction SWPPP and WDID application to the Regional Water Quality Control Board.	Upon CBO/CEC approval of the SWPPP	Complete	Approved by CEC on 5/18/11
WATER QUAL & SOILS- 02d	CONS	The project owner shall comply with the requirements of the NPDES Permit for Discharges of Stormwater Associated with Construction Activity. The project owner shall develop and implement a Construction SWPPP for the entire WCEP site, lay down area, and all linear facilities.	The project owner shall notify the CPM of any reported non- compliance with the Construction SWPPP.	As required	As required	
WATER QUAL & SOILS- 03a	OPS	The project owner shall comply with the requirements of the General National Pollutant Discharge Elimination System (NPDES) Permit for Discharges of Storm water Associated with Industrial Activity. The project owner shall develop and implement a Storm Water Pollution Prevention Plan (SWPPP) for the operation of the entire WCEP site (Operational SWPPP), and shall submit copies to the CPM of all correspondence between the project owner and the RWQCB about the General NPDES permit.	Submit copies to the CPM of the Operational SWPPP for the entire WCEP site for review and approval. This information shall include a copy of the Notice of Intent.	At least 60 days prior to commercial operation	Complete	Notice of Non-Applicability submitted to RWQCB 1/25/2013 to obtain exemption from coverage under General Permit for Industrial Activities
WATER QUAL & SOILS- 03b	OPS	Following the commercial operation date, the project owner shall notify the CPM of any reported non-compliance with the SWPPP, any associated corrective measures, and the results of implementing those measures.	Submit any reported non-compliance and copies of all correspondence between the project owner and the RWQCB about the General NPDES permit to the CPM.	As needed following start of commercial operation	As required	
WATER QUAL & SOILS- 04	CONS	The project owner shall obtain a Flood Permit and Water Quality Agreement for commercial connection of the WCEP's operational storm water system to the County's flood control system from Los Angeles County Flood Control District/Department of Public Works. WCEP shall comply with all storm water discharge requirements, including pretreatment, peak flow restrictions, payment of fees, and monitoring and reporting requirements as applicable. The CPM shall be notified by the project owner in writing of any reported non-compliance with the Water Quality Agreement's discharge requirements, including corrective measures for non-compliance and the results of implementing those measures. The project owner shall also prepare and comply with a Standard Urban Storm water Mitigation Plan (SUSMP).	Provide the CPM with a copy of its Water Quality Agreement for commercial connection to the County's flood control system from Los Angeles County Flood Control District/Department of Public Works. Provide evidence of compliance with the SUSMP. The CPM shall be notified by the project owner in writing within 10 days of any reported non-compliance with the Water Quality Agreement's discharge requirements, including corrective measures for non-compliance and the results of implementing those measures.	At least 30 days prior to WCEP commercial operation	Pending CEC Approval	Email from City of Industry provided to CEC CPM on 3/29 documenting jurisdictional issues with Flood Control Permit/Water Quality Agreement
WATER QUALITY AND SOILS -05		See WATER RES-4				
WATER QUALITY AND SOILS -06		See WATER RES-1				

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WATER QUALITY AND SOILS -07		See WATER RES-2				
WATER QUALITY AND SOILS -08		See WATER RES-3				
WATER QUALITY AND SOILS -09a	OPS	The project owner shall obtain a Permit for Industrial Wastewater Discharge and comply with the wastewater discharge limitations, pretreatment requirements, peak flow restrictions, dewatering discharges, payment of fees, and monitoring and reporting requirements of Los Angeles County Sanitation District.	Provide the CPM with a copy of its Permit for Industrial Wastewater Discharge from Los Angeles County Sanitation District. The CPM shall be notified by the project owner in writing within 10 days of any reported non-compliance with Los Angeles County Sanitation District's discharge requirements, including corrective measures for non-compliance and the results of implementing those measures.	At least 30 days prior to commercial operation	Complete	Submitted to CEC 2/4/2013
WATER QUALITY AND SOILS -09b	OPS	The project owner shall obtain a Permit for Industrial Wastewater Discharge and comply with the wastewater discharge limitations, pretreatment requirements, peak flow restrictions, dewatering discharges, payment of fees, and monitoring and reporting requirements of Los Angeles County Sanitation District.	The CPM shall be notified by the project owner in writing within 10 days of any reported non-compliance with Los Angeles County Sanitation District's discharge requirements, including corrective measures for non-compliance and the results of implementing those measures.	Within 10 days of reported non- compliance	As needed	
WATER RES-01a	PC	The project owner shall use reclaimed water as its primary water supply for construction and operations, including cooling, process, and other approved non-potable uses. Any proposed changes in water supply that could cause an increase in WCEP's potable water use in excess of the limit specified in WATER RES-2 must first be approved by the CPM. Prior to construction, the project owner shall install or obtain access to a service or hydrant for use of reclaimed water during construction for dust suppression, hydrostatic testing and all other non-potable uses.	Submit evidence to the CPM that it has installed or obtained access to a service or hydrant for use of reclaimed water during construction for dust suppression, hydrostatic testing and all other non-potable uses.	At least 30 days prior to construction	Complete	Approved by CEC 5/11/11
WATER RES-01b	OPS	Prior to commercial operation, the project owner shall install and maintain metering devices as part of the WCEP reclaimed and potable water supply and distribution system to monitor and record in gallons per day the total volumes of water supplied to the WCEP from each water source. Those metering devices shall be operational for the life of the project.	Submit to the CPM proof that metering devices have been installed and are operational on the reclaimed and potable water supply distribution systems to WCEP. Water use may be based on metering or billings from the supplier. Any proposed changes in water supply that could cause an increase in WCEP's potable water use in excess of the limit specified in WATER RES-2 must first be approved by the CPM.	At least 60 days prior to commercial operation	Complete	Submitted to CEC 1/28/2013
WATER RES-01c	OPS	The project owner shall prepare an annual Water Use Summary, which will include the monthly range and monthly average of daily potable and reclaimed water usage in gallons per day, and total water used by the project on a monthly and annual basis in acre-feet. For subsequent years, the annual Water Use Summary shall also include the yearly range and yearly average water use by the project. The annual summary shall be submitted to the CPM as part of the annual compliance report, and shall include a report on the servicing, testing and calibration of the metering devices.	Submit a Water Use Summary to the CPM in the annual compliance report. The summary report shall distinguish between recorded water use of reclaimed and potable water. Included in the summary report of water use, the project owner shall submit copies of meter record documenting the quantities of reclaimed water provided. The project owner shall provide a report on the servicing, testing and calibration of the metering devices in the annual compliance report.	Include in ACR	2/28/2019	2018 ACR Due 2/28/2019
WATER RES-01d	OPS	The project owner shall use reclaimed water as its primary water supply for construction and operations, including cooling, process, and other approved non-potable uses. Any proposed changes in water supply that could cause an increase in WCEP's potable water use in excess of the limit specified in WATER RES-2 must first be approved by the CPM.	Request approval from CPM for increase in potable water use in excess of limit specified in WATER RES-2.	Prior to increase in potable water usage	As needed	

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Compliance Matrix Based on CEC 2008 Final Decision and Amendments

Color code key:	Pre-Construction (PC)
	Construction (CONS)
	Commissioning (COMM)
	Operations (OPS)
	Pending CEC Approval
	Approved

Cond. #	Phase	Description of Condition of Certification	Verification Requirement	Submittal Deadline to CEC	Projected Completion Date	Status/ Comments
WATER RES-02	OPS	The project owner shall not exceed 95 AF of potable water use per calendar year as emergency backup water supply, without written authorization from the CPM. The project owner shall monitor the use of emergency backup water and report estimated usage prior to any planned reclaimed water system outages, and report total usage to the CPM immediately after any occurrence when potable water is used as a backup water source. Potable water shall not be used for cooling, process, or other approved non-potable uses when reclaimed water is available. When necessary to use potable water for emergency backup supply, it shall not exceed the minimum amount required to allow for the re-introduction of reclaimed water as the main water supply source following disruption of reclaimed water service. The project owner shall report all disruptions to the reclaimed water service in the annual compliance report, including the cause, associated volume of potable water used, and the total annual use for the year and for two years prior.	Notify the CPM in writing of the potential use of emergency backup potable water and provide an estimate of the volume required to continue normal power generation. During any unplanned outages in reclaimed water supply, the project owner shall notify the CPM when emergency backup potable water is being used. The project owner shall document total usage for each service interruption where potable water was used as an emergency backup. The project owner shall report all disruptions to the reclaimed water service in the annual compliance report, including the cause, associated volume of potable water used, and the total annual use for the year and for two years prior. The project owner shall not exceed 95 AF of potable water use per calendar year as emergency back-up water supply, without written authorization from the CPM.	At least 30 days prior to any planned interruption in reclaimed water supply	As required	
WATER RES-03a	OPS	The project owner shall secure a Water Supply Service Agreement for reclaimed and potable water service from Rowland Water District.	Provide the CPM with a copy of its Water Service Agreement with Rowland Water District.	At least 30 days prior to WCEP commercial operation	Complete	Submitted to CEC CPM 3/15/2013
WATER RES-03b	OPS	The project owner shall report to the CPM any incidents of non-compliance with the service agreement (e.g. exceeding maximum delivery rates or annual volumes of potable and reclaimed water supply), corrective measures to avoid recurrence, and the results of implementing those measures.	The CPM shall be notified within 10 days of any incidents of non- compliance with the terms of the Water Service Agreement, including proposed corrective measures to avoid recurrence, and the results of implementing those measures.	Within 10 days of any incidents of non-compliance	As required	
WATER RES-04a	РС	Prior to site mobilization, the project owner shall submit a Dual Plumbing Plan for using reclaimed and potable water to Rowland Water District and Los Angeles County Department of Health Services for review and comment, and to the CPM for review and approval. See WATER RES-4 for details. The Dual Plumbing Plan shall be prepared in accordance with Los Angeles County Department of Health Services requirements and Title 22 of the State Water Code. The project owner shall comply with any reporting and inspection requirements set forth by the County Department of Health Services to fulfill statutory requirements. Following site mobilization, the project owner shall submit a written summary in the Monthly Compliance Reports, reporting the status of the Dual Plumbing Plan's review by Rowland Water District and Los Angeles County Department of Health Services, and the plan's implementation.	Submit the Dual Plumbing Plan to the Rowland Water District and Los Angeles County Department of Health Services for review and comment, and to the CPM for review and approval.	At least 90 days prior to site mobilization	Complete	Both Rowland Water District and County provided comments; comments have been responded to by Kiewit
WATER RES-04b	CONS	Following site mobilization, the project owner shall submit a written summary in the Monthly Compliance Reports, reporting the status of the Dual Plumbing Plan's review by Rowland Water District and Los Angeles County Department of Health Services, and the plan's implementation following approval by the CPM.	Submit the required documentation in the MCR.	Include in MCR	Complete	Construction is complete; final MCR submitted 6/14/2013
WATER RES-04b	PC	Prior to site mobilization, the project owner shall submit a Dual Plumbing Plan to the CPM for review and approval.	Submit the Dual Plumbing Plan to the CPM for review and approval.	At least 90 days prior to site mobilization	Complete	Approved by CEC on 5/10/11
WORKER SAFETY-01	PC	The Project Owner shall submit to the CPM a copy of the Project Construction IIPP, PPE, Exposure Monitoring, EAP and FPP. The PPE, Exposure IIIP, and PPE shall be submitted to the CPM for review and approval concerning compliance of the program with all applicable Safety Orders. The Construction EAP and FPP shall be submitted to the Los Angeles County Fire Department for review and comment prior to submittal to the CPM for approval.	Submit to the CPM for review and approval a copy of the Project Construction Safety and Health Program. The project owner shall provide the CPM with a copy of a letter from the Los Angeles County Fire Department stating the Fire Department's comments on the Construction Fire Prevention Plan and Emergency Action Plan.	30 days prior to start of construction	Complete	Approved by CEC on 5/18/11

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Compliance Matrix Based on CEC 2008 Final Decision and Amendments

Color code key:	Pre-Construction (PC)
	Construction (CONS)
	Commissioning (COMM)
	Operations (OPS)
	Pending CEC Approval

Cond. #	Phase	Description of Condition of Certification	Verification Requirement	Submittal Deadline to CEC	Projected Completion Date	Status/ Comments
WORKER SAFETY-02	OPS	The project owner shall submit to the CPM a copy of the Project Operations and Maintenance Safety and Health Program containing the following: An Operation Injury and Illness Prevention Plan, Emergency Action Plan, Hazardous Materials Management Program, Fire Prevention Program (8 CCR §3221), and Personal Protective Equipment Program (8 CCR §5 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 program with all applicable Safety Orders. The Operation Fire Prevention Plan and the Emergency Action Plan shall also be submitted to the Los Angeles County Fire Department for review and comment.	Submit to the CPM for approval a copy of the Project Operations and Maintenance Safety and Health Program. The project owner shall provide a copy to the CPM of a letter from the Los Angeles County Fire Department stating the Fire Department's comments on the Operations Fire Prevention Plan and Emergency Action Plan.	At least 30 days prior to the start of commissioning	Complete	Submitted 8/31/2012 Update to EAP submitted 3/5/2013
WORKER SAFETY-03a	PC	The project owner shall provide a site Construction Safety Supervisor (CSS) who, by way of training and/or experience, is knowledgeable of power plant construction activities and relevant LORS, is capable of identifying workplace hazards relating to the construction activities, and has authority to take appropriate action to assure compliance and mitigate hazards.	Submit to the CPM the name and contact information for the Construction Safety Supervisor (CSS). The contact information of any replacement (CSS) shall be submitted to the CPM within one business day of starting in the position.	At least 30 days prior to the start of site mobilization	Complete	Approved by CEC on 4/28/11
WORKER SAFETY-03b	CONS	The 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.		Include in MCR	Complete	Construction is complete; final MCR submitted 6/14/2013
WORKER SAFETY-04	PC	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.	Prior to the start of construction, the project owner shall provide to the CPM for review and approval, proof of its agreement to fund the Safety Monitor services.	Prior to start of construction	Complete	Approved by CEC on 4/25/11
WORKER SAFETY-05	PC	The project owner shall ensure that a portable automatic cardiac defibrillator is located on site during construction and operations and shall implement a program to ensure that the equipment is properly maintained and functioning at all times and that for each shift on-site personnel shall be trained in the American Heart Association's Heartsaver Automatic External Defibrillator (AED) Course, or equivalent, as follows: Construction: minimum 4 personnel per shift, including one security guard, Operation: minimum 2 personnel per shift, including one security guard.	Submit to the CPM proof that a portable automatic cardiac defibrillator exists on site and a copy of the training and maintenance program for review and approval.	At least 30 days prior to the start of site mobilization	Complete	Approved by CEC on 5/18/11; email confirming AED on site and picture thereof emailed to CEC on 6/2/11; additional pictures of AED per CPM's request approved on 6/21/11

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# **Attachment B**

# Documentation of RECLAIM Trading Credits (AQ-16)



December 26, 2018

Danny Luong
RECLAIM Manager
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765-4182

Subject:

Walnut Creek Energy Park (Facility ID 146536)

Verification of 2019 RECLAIM Trading Credits

Dear Mr. Luong:

In accordance with the requirements of CEC Condition of Certification AQ-16 and the SCAQMD RECLAIM/Title V Permit, Section D, Conditions I298.1, I298.2, I298.3, I298.4, I298.5, I298.6, I298.7, I298.8, I298.9, I298.10, and I298.11 Walnut Creek Energy, LLC has obtained (based on a combination of the Allocation and NSR Use Accounts) the required 176,418 pounds of NOx RTCs and 11,400 pounds of SOx RTCs for the 2019 RECLAIM compliance year.

Should you have any questions, please contact me at (626) 986-0373.

Sincerely,

Heather MacLeod

**Environmental Specialist** 

CC:

Christian Aviles, SCAQMD

Andrew Lee, SCAQMD Eric Veerkamp, CEC

Rick McPherson, NRG Energy

George Piantka, NRG Energy

WCEP O&M File: 03.03.10.01

# **Attachment C**

List of Hazardous Materials (HAZ-1)

# Walnut Creek Energy Park Operations Hazardous Materials List

#### Condition of Certification HAZ-1

Area Description	Chemical Name	Trade Name on HMIS/MSDS	CAS Number	Quantity On Site
	Sodium Hydroxide (30%)	BWT-100-A	1310-73-2	550 gal
	Sodium Hypochlorite (12.5%)	Sodium Hypochlorite 12.5%	7681-52-9	1,600 gal
	Coagulant	Megafloc 785	None	12 gal
	Sodium Bisulfite	BWT-104	7631-90-5	550 gal
Mater Treatment Chamicals	Scale Inhibitor	RO 503	None	550 gal
Water Treatment Chemicals	Cooling Water Biocide	BioTrol 509	None	550 gal
	Sodium Bromide	BioTrol 140	7647-15-6	10 gal
	Reverse Osmosis Biofouling Cleaner	ROC 50 KBT	None	55 gal
	Reverse Osmosis Scalant Cleaner	ROC 20 KBT	None	55 gal
	Corrosion/Scale Inhibitor	TowerFlex	None	300 gal
	Sodium Hypochlorite (12.5%)	Sodium Hypochlorite 12.5%	7681-52-9	2,200 gal
	Sulfuric Acid (93%)	Sulfuric Acid	7664-93-9	3,000 gal
Cooling Tower Chemicals	Sodium Bromide	Biotrol 102	None	2,200 gal
	Sodium Bromide	Bromide Plus	None	550 gal
	Corrosion/Scale Inhibitor	TowerFlex	None	2,200 gal
	CT Lube Oil (Mineral Lube Oil)	Mobil DTE Light	None	8,275 gal per turbine
Combustion Turbine AUX Skid (5 total)	CT Lube Oil (Synthetic Oil)	Mobil Jet II	None	177 gal per turbine and one 55 gal drum
Combustion Turbine CT Enclosure (5 total)	CT Lube Oil (Hydraulic Lube Oil)	Mobil DTE 26	None	55 gal per turbine
Fuel Gas Compressor (3 total)	Fuel Gas Compressor Lube Oil - SAE 40	Mobil Pegasus 805	None	152 gal per compressor
Aqueous Ammonia Containment	Aqueous Ammonia (19%)	Aqueous Ammonia (19%)	1336-21-6	112,000 lb
Breakers (8 total)	Sulfur Hexafluoride	Sulfur Hexafluoride	2551-62-4	50 lb per breaker
Transformers (5)	Mineral Oil	Hytrans 61	None	10,700 gal per transformer
Transformers (2)	Mineral Oil	Hytrans 61	None	6,896 gal per transformer
Emergency Firepump Engine	Diesel Fuel No. 2	Diesel Fuel No. 2	68476-34-6	300 gal
	Lead Acid Batteries	Lead Acid Batteries	7664-93-9	9.2 gal
	Laboratory Reagents (Liquid)	Various	None	20 gal
Warehouse	Laboratory Reagents (Solid)	Various	None	100 lb
	Cleaning Chemicals & Detergents	Various	None	20 gal
Water Treatment Electrical Room/5KV Building/Unit 1-5 PCMs	Lead Acid Batteries	Lead Acid Batteries	7664-93-9	2132 gal
Oil Storage Building	Highly Refined Mineral Oil	D-A Lubricants Reliant	None	55 gal
	CT Lube Oil (Mineral Lube Oil)	Mobil DTE Light	None	165 gal
	Hydraulic Fluid	Mobil DTE Excel 46 oil	None	165 gal
	CT Lube Oil (Hydraulic Lube Oil)	Mobil DTE 26	None	55 gal
	Turbine Oil	Mobile DTE Oil Heavy Medium	None	20 gal
	Hydraulic Fluid	Mobile DTE 25	None	15 gal
	Diesel Fuel No. 2	Diesel Fuel No. 2	68476-34-6	110 gal
	CT Lube Oil (Synthetic Oil)	Mobil Jet II	None	110 gal
	Cylinder Oil	Mobil 600 W Super Cylinder Oil	None	55 gal
	Fuel Gas Compressor Lube Oil - SAE 40	Mobil Pegasus 805	None	55 gal
		, -	1	_

# **Attachment D**

Documentation of Cooling Tower Operating Parameters (VIS-4)



February 24, 2014

Ms. Camille Remy Obad
Compliance Project Manager
Siting, Transmission and Environmental Protection (STEP) Division
California Energy Commission
1516 Ninth Street (MS-2000)
Sacramento, CA 95814

Subject:

Walnut Creek Energy Park (Docket No. 05-AFC-2C)

**Condition of Certification VIS-4** 

**Written Certification Regarding Operations of Cooling Tower** 

Dear Ms. Remy Obad,

Condition of Certification (COC) VIS-4 as set forth in the California Energy Commission's Final Decision for the Walnut Creek Energy Park, requires that a written certification for operation of the cooling tower be provided in the Annual Compliance Report. The certification is to demonstrate that the cooling tower has consistently been operated within the design parameters specified in VIS-4, except as necessary to prevent damage to the cooling tower.

This is to certify that no changes have been made to the cooling tower design, which would preclude the cooling tower from operating within the original design parameters.

Should you have any questions or comments, please do not hesitate to contact me at (626) 968-0360 Ext. 1.

Sincerely,

Rick McPherson Plant Manager

WCEP O&M File: 03.09.15.03.04

Ruk MALerin

# **Attachment E**

Waste Management Plan (WASTE-5)



# 05-AFC-2C

# WASTE-5 <u>Operations Waste Management</u> <u>and Minimization Plan</u>

**April 1, 2013** 

Revision 5 – December 28, 2018

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#### **TABLES**

Table 1 Walnut Creek Energy Park Anticipated Waste Streams and Frequency of Generation

Table 2 Transportation and Disposal Contractors

#### **Abbreviations and Acronyms**

AFC Application for Certification

CCR California Code of Regulations

CEC California Energy Commission

CFR Code of Federal Regulations

CEC California Energy Commission

COC Condition of Certification

CPM Compliance Project Manager

CTG combustion turbine-generator

CRT cathode ray tube

LACSD County Sanitation Districts of Los Angeles County

MW megawatt

NOx nitrogen oxide

RCRA Resource Conservation and Recovery Act

SCE Southern California Edison

STLC soluble threshold limit concentration

TCLP toxicity characteristic leaching procedure

TTLC total threshold limit concentration

UHWM Uniform Hazardous Waste Manifest

WCEP Walnut Creek Energy Park

WMP Waste Management Plan

#### 1 INTRODUCTION

Walnut Creek Energy, LLC (WCE), an NRG Energy, Inc company owns and operates an electrical generating plant in the City of Industry, California. The Walnut Creek Energy Park (WCEP) is a 500 megawatt (MW) natural gas-fired, simple-cycle electrical generating facility. The WCEP generates power during times of peak demand and provides the fast-start capabilities needed to provide in-basin voltage support as needed and to help integrate renewable energy resources into the grid.

#### 1.1 Purpose

This Operations Waste Management Plan (WMP), which is required pursuant to Condition of Certification (COC) WASTE-5 in the California Energy Commission (CEC) Final Commission Decision for the WCEP (CEC, 2008), identifies the expected waste streams and describes the waste management procedures that are used to maximize diversion and minimize the quantity of waste requiring disposal. This WMP specifically addresses the generation and characterization of waste, on-site storage and handling, waste discharge, off-site shipment, and disposal of solid and liquid wastes generated at the project site. The WMP also summarizes the responsibilities of operations personnel and serves as a tool to provide for accountability of material throughout the project activities.

As required by COC WASTE-5, actual waste management methods used each year will be documented in the Annual Compliance Report submitted to the CEC per COC COM-7, including a comparison of the actual methods used to those outlined in this WMP.

#### 1.2 Project Summary

The facility is located at 911 Bixby Drive in City of Industry, California. It is located within an industrial area and is surrounded by industrial uses that include warehousing, manufacturing, and transportation (railroad and intermodal rail/truck yard) uses, electric transmission lines, the San Jose Creek Flood Control Channel, and the Southern California Edison (SCE) Walnut Substation. Residential areas are located in the City of La Puente to the north and in the unincorporated Los Angeles County community of Hacienda Heights to the south.

The WCEP contains the following components on site:

 Five 100-MW General Electric LMS100 natural gas-fired combustion turbinegenerators (CTGs), each equipped with water injection capability to reduce nitrogen oxide (NOx) emissions, and:

- Selective catalytic reduction equipment containing catalysts to further reduce NOx emissions;
- Oxidation catalyst to reduce carbon monoxide emissions;
- Inlet air filter house with evaporative cooler; and
- > Turbine inter-cooler.
- One four-cell mechanical-draft cooling tower;
- Three natural gas compressors;
- Generator step-up and auxiliary transformers; and
- Associated balance of plant equipment.

In addition, the facility has the following utility connections:

- A 230-kilovolt (kV) transmission line located within the SCE transmission easement connects the facility to the SCE Walnut Substation.
- Potable and recycled water are supplied by Rowland Water District.
   Recycled water is used as cooling tower and evaporative cooler makeup water, landscape irrigation water, and demineralizer makeup water.
- A 14-inch diameter connection to the Southern California Gas Company's 30-inch, high-pressure natural gas pipeline that occupies a utility easement within the project parcel supplies natural gas to the facility.
- An 8-inch diameter connection to the County Sanitation Districts of Los Angeles County (LACSD) trunk sewer at the southwest corner of the site allows for discharge of industrial wastewater.

#### 1.3 Responsibilities

Waste is routinely generated onsite as part of the electrical generating process and maintenance activities, and it is imperative that proper waste management be an integral part of everyday plant operations. Every WCEP employee is trained on the regulatory requirements and aware of the environmental and financial impacts related to the disposal of wastes and materials in an effort to minimize generated wastes.

The following personnel will be responsible for implementing waste management methods and procedures.

#### 1.3.1 Operator Mechanics

Operator Mechanics are responsible for meeting all regulatory requirements applicable to waste management including:

- Handling
- Storage
- Labeling

- Weekly Inspections
- Assisting in sample collection for waste characterization

#### 1.3.2 Environmental Specialist

The Environmental Specialist is responsible for the following:

- Initial and annual refresher training to required personnel covering applicable regulatory requirements and the WCEP waste minimization practices discussed in this plan
- Coordination with contractors for waste characterization, transportation, and disposal
- Recordkeeping

#### 1.3.3 Plant Supervisor and Plant Manager

The Plant Supervisor and Plant Manager will oversee both Operator Mechanics and the Environmental Specialist to ensure compliance.

#### 2 WASTE MANAGEMENT REQUIREMENTS

Waste streams at the WCEP during operations include non-hazardous wastes, universal wastes, recycled hazardous wastes and hazardous wastes. All wastes generated during operation will be managed in accordance with the procedures described in the following subsections which cover storage, characterization, disposal and minimization activities. In addition, anticipated waste streams during WCEP operations, including generation frequencies, storage locations and accumulation time limits, are summarized in Table 1. Waste transportation and disposal contractors are summarized in Table 2.

#### 2.1 Non-Hazardous Wastes

Non-hazardous wastes generated during WCEP operations include the following:

- Municipal waste (i.e., minor amounts of putrescible garbage, office- and maintenance-related trash including waste paper, glass, cans, pallets, cardboard, landscaping wastes, etc.)
- Bulk recyclable materials
- Empty containers
- Laboratory Waste
- Wastewater
  - Plant drains

- Accumulated rain water in secondary containments
- Cooling water
- Sanitary wastes

The WCEP uses non-hazardous alternatives when appropriate to meet job specifications and non-hazardous waste is a normal product of plant operations. "Good housekeeping" practices are maintained throughout the site and solid waste storage areas. Waste container type, size and numbers are maintained to ensure that they are compatible with the waste generated. Non-hazardous waste is recycled whenever practicable.

#### 2.1.1 Municipal Waste

Municipal wastes are collected and disposed of by a local waste collection vendor. Wastes are stored in bins provided by the vendor and collected on a weekly basis. Municipal waste may include some recyclable materials; however, the WCEP also utilizes a recycling service as described below. The local waste collection vendor separates any recyclables from the waste stream at a transfer station prior to disposal; it does not provide separate collection bins for these materials.

#### 2.1.2 Bulk Recyclable Materials

Bulk recyclable materials generated during WCEP operations include:

- Paper
- Plastic Bottles
- Aluminum Cans
- Cardboard
- Scrap Metal
- Scrap Equipment

Scrap metal and equipment include ferrous and non-ferrous metal wastes from routine and periodic facility maintenance such as metal turnings and cuttings, unusable parts, and obsolete equipment, as well as items such as metal banding. Paper, plastic bottles, aluminum cans, cardboard and scrap metal are accumulated in designated bins and cages.

#### 2.1.3 Empty Containers

All containers such as buckets, drums and totes which formerly held a hazardous material will be fully drained prior to disposal or recycling. Containers will be recycled to the maximum extent possible. Empty containers with a capacity of five gallons or less

that cannot be recycled will be placed in the facility trash receptacle for collection with municipal waste unless they previously contained hazardous materials.

In the event that a container that previously contained a hazardous material or waste cannot be emptied and managed in accordance with the contaminated container requirements of Title 22 California Code of Regulations (CCR) §66261.7, the container will be managed as hazardous waste and removed from the site within 180 days.

#### 2.1.4 Laboratory Analysis Waste

Laboratory analysis waste generated at the WCEP will include water samples and rinsate from daily water sampling. Laboratory waste is non-hazardous based on generator knowledge and will be disposed of in the cooling tower as needed. Accumulation of laboratory waste will not exceed one year from the accumulation start date.

#### 2.1.5 Wastewater

Wastewater from plant drains including area wash down, sample drains, equipment leakage, and drainage from facility equipment containment areas is collected in a system of floor drains, hub drains, sumps, and piping within the facility and discharged to one of three oil/water separators on site. The wastewater is then recycled to the cooling tower basin. Wastewater from combustion turbine water washes will be collected in holding tanks located at each CTG unit. If the wastewater from turbine water washes is suitable for reuse, it will be pumped to the cooling tower basin. If the wastewater is not suitable for reuse, it will be disposed of off-site. Wastewater from turbine water washes is expected to be non-hazardous based on generator knowledge. Cooling water system blow down is routed to the wastewater surge tank located at the west end of the site. Water in the wastewater surge tank is discharged to the LACSD trunk sewer under Industrial Wastewater Discharge Permit No. 21596. As required by Permit No. 21596. WCE will perform quarterly self monitoring to verify compliance with discharge requirements and prepare a quarterly self monitoring report for submission to LACSD.

Sanitary wastes generated at the administration building are directed to the LACSD trunk sewer. A sanitary lift station is located on the south side of the facility. The connection to the LACSD trunk sewer for sanitary waste discharge is separate from the industrial wastewater connection described above.

Storm water runoff is discharged to the storm drain via a system of catch basins on site. Best management practices will be employed to reduce the volume and toxicity of materials contacting storm water. Rainwater accumulated in secondary containments around outdoor plant equipment (e.g., transformers and chemical storage tanks) will not

be discharged to the storm drain. Accumulated rainwater will be directed to the oil/water separators and then discharged to the cooling water basin. Prior to diverting the water to the oil/water separators the accumulated rainwater will be inspected and the inspection will be documented in accordance with the WCEP Industrial Wastewater Permit requirements.

#### 2.2 Universal Wastes

Universal wastes generated during WCEP operations include:

- Spent consumer type batteries
- Spent mercury-containing lamps
- Consumer electronic devices

Universal wastes are hazardous upon disposal but pose a lower risk to people and the environment than other hazardous wastes. Hazardous waste regulations (California Code of Regulations, Title 22, Division 4.5, Chapter. 11, Section 66261.9) identify the categories of hazardous wastes that can be managed as universal wastes. Any unwanted item that falls within one of these waste streams can be handled, transported and recycled following the simple requirements set forth in the universal waste regulations.

#### 2.2.1 Spent Consumer Type Batteries

Spent consumer type batteries are managed as universal waste in accordance with Title 22 CCR §66261.9(a) and 66273.2. (For spent lead acid batteries, see Section 2.3.) All spent consumer type batteries, which may include alkaline, nickel cadmium and similar batteries, will be placed in a closed, corrosion-resistant container with a label indicating the contents ("Universal Waste – Batteries") and the accumulation start date. The container will be kept in the Warehouse, and accumulation time will not exceed one year from the initial date of accumulation.

Battery box shipment and recycling will be coordinated with the battery recycling vendor. A non-hazardous waste manifest which indicates that the batteries will be recycled will be used for transportation of spent consumer type batteries. The WCEP will maintain copies of the shipment records.

#### 2.2.2 Spent Mercury-Containing Lamps

Spent mercury-containing lamps (e.g., fluorescent lamps) are considered a universal waste as defined in Title 22 CCR §66261.9 and will be managed in accordance with Title 22 CCR §66273.1 through §66273.70. Spent lamps will be placed in their original or similar packaging to prevent breakage and stored in the Warehouse prior to disposal.

Each package of lamps will be labeled to indicate their contents ("Universal Waste – Lamps") and the accumulation start date. Accumulation time will not exceed one year from the accumulation start date.

Transportation and disposal of spent lamps will be coordinated with a universal waste vendor. A non-hazardous waste manifest or bill of lading will be used for transportation of spent lamps. The driver transporting the spent lamps will note the number of containers on the non-hazardous waste manifest or bill of lading and provide appropriate copies to WCEP personnel. Original copies of non-hazardous waste manifests and bills of lading will be filed on site.

#### 2.2.3 Consumer Electronic Devices

The WCEP expects to generate minimal amounts of used consumer electronic waste. Consumer electronic devices are considered a universal waste as defined in Title 22 CCR §66261.9 and will be managed in accordance with Title 22 CCR §66273.1 through §66273.70. Consumer electronic devices will be placed in a closed sealed storage container in the hazardous waste accumulation area. Each container will be labeled to indicate the contents ("Universal Waste – Electronic Devices") and the accumulation start date. Accumulation time for electronic devices will not exceed one year from the accumulation start date.

Transportation of such waste will be coordinated with a universal waste vendor for recycling where possible. A non-hazardous waste manifest or bill of lading will be used for transportation of electronic devices. The driver transporting electronic devices will note the number of devices on the non-hazardous waste manifest or bill of lading and provide appropriate copies to WCEP personnel. Original copies of non-hazardous waste manifests and bills of lading will be filed on site. The WCEP will keep records of any consumer provided to a recycling facility.

#### 2.3 Recyclable Hazardous Wastes

Recyclable wastes generated during WCEP operations may include the following:

- Used oil
- Used oil filters
- Spent lead acid batteries

As appropriate, the WCEP will recycle waste generated during operation, which can include hazardous wastes amendable for recycling. Recyclable hazardous wastes will be segregated from the waste stream and offered, for off-site transport and recycling to the greatest extent possible.

#### 2.3.1 Used Oil

Health and Safety Code section 25250.4 requires that used oil be managed as a hazardous waste in California unless it is shown to meet the specifications for recycled oil in Health and Safety Code section 25250.1(b) or qualifies for a recycling exclusion under Health and Safety Code section 25143.2.

Used oil will be generated by the following processes at the WCEP: oil/water separators, lube oil skid maintenance activities, equipment maintenance, diesel fire pump maintenance, and fuel gas compressor maintenance. High volume maintenance activities that require a large amount of oil to be removed will be pumped into a vacuum truck for recycling. Used oil generated at the lube oil skids, oil/water separators, diesel fire pump, and fuel gas compressors will be pumped into a vacuum truck for recycling. Used oil generated as a result of routine and small equipment maintenance will be containerized in metal drums and managed as hazardous waste. In addition, the containers will have a National Fire Protection Association label, marked appropriately for the type of oil stored based on the information in the corresponding Material Safety Data Sheet. Storage of used oil in containers will meet the requirements of Title 22 CCR, Chapter 15, Article 9. Accumulation time for used oil will not exceed 180 days from the accumulation start date.

Transportation and recycling of used oil for recycling will be coordinated with a hazardous waste transporter. A Uniform Hazardous Waste Manifest or Consolidated Hazardous Waste Manifest, provided by the vendor or the WCEP will be used for transportation of used oil. The driver transporting the used oil will note the number or containers or bulk quantity of used oil on the hazardous waste manifest and provide appropriate copies to WCEP personnel. Original copies of the manifests will be filed on site.

#### 2.3.2 Used Oil Filters

Used oil filters are exempt from federal and state regulation as a hazardous waste if managed in accordance with 40 Code of Federal Regulations (CFR) §261.6(a)(3)(iv) and Title 22 CCR §66266.130, respectively. In order to classify for this exemption, used oil filters will be completely drained of free flowing oil and placed in metal drums labeled with the contents ("Drained Used Oil Filters") and accumulation start date.

Accumulation time for used oil filters will not exceed one year from the accumulation start date. Waste oil drained from the filters will be managed as used oil as described in Section 2.3.1.

Profiling of used oil filters is not required if managed in accordance with Title 22 CCR §66266.130. Transportation and recycling of used oil filters will be coordinated with a waste transportation vendor. Non-hazardous waste manifests or bills of lading used for

transportation of used oil filters will be prepared in accordance with the requirements of Title 22 CCR §66266.130(c)(5). The driver transporting the oil filters will note the number of containers on the non-hazardous waste manifest or bill of lading and provide appropriate copies to WCEP personnel. Original copies of non-hazardous waste manifests and bills of lading will be filed on site.

#### 2.3.3 Spent Lead Acid Batteries

Spent lead acid batteries are exempt from federal and state hazardous waste requirements if managed in accordance with 40 CFR §266.81 and Title 22 CCR §66266.81, respectively. The supplier(s) of lead acid batteries at the WCEP will replace spent batteries with new batteries and coordinate both transportation and recycling of the spent batteries. Prior to shipment off site, spent batteries will be stored in a secure, contained location and the WCEP will ensure that they are properly segregated from incompatible wastes/materials. The battery will either be double-bagged with polyethylene plastic bags or placed on a pallet. A non-hazardous waste manifest or bill of lading will be used for transportation of spent lead acid batteries. The non-hazardous waste manifest or bill of lading will list the date, name and address of the generator, transporter, and transfer and/or recycling facility, and number of batteries. The driver transporting the batteries will note the number of batteries on the non-hazardous waste manifest or bill of lading and provide appropriate copies to WCEP personnel. Original copies of non-hazardous waste manifests and bills of lading will be filed on site and retained for a minimum of 3 years.

#### 2.4 Hazardous Wastes

Hazardous wastes generated during WCEP operations may include the following:

- Natural gas condensate
- Used natural gas filters
- Absorbent material used to contain or soak up oil
- Paint-related wastes
- Cooling tower sludge
- SCR and CO Catalyst Units
- Expired chemicals
- Spent Aerosol Cans

Hazardous wastes will be stored in a designated hazardous waste accumulation area prior to disposal. Since the hazardous waste accumulation area is expected to contain some flammable wastes, such as used oil, it will be located at least 50 feet from the property line as required by Title 22 CCR §66265.176.

The above listed wastes are anticipated to be classified as hazardous based on generator knowledge. Where analysis is required, WCE will follow federal and state protocols relative to sampling protocols and analytical methods.

The WCEP is currently classified as a small quantity hazardous waste generator under EPA ID number CAR000145714. It is anticipated that the WCEP will remain a small quantity generator during operations; however, waste generation records will be periodically reviewed to determine if a change in generator status, with a resulting change in accumulation time limit, is necessary.

#### 2.4.1 Natural Gas Condensate

Natural gas condensate from the fuel gas compressors is collected in the fuel gas compressor drain tank located on the south side of the fuel gas compressor building. The tank is an aboveground storage tank, is located in a secondary containment structure and has been certified as a hazardous waste tank in accordance with Title 22 CCR §66265.192. Natural gas condensate accumulated in the tank will be managed in accordance with Title 22 CCR, Division 4.5, Chapter 15, Article 10.

Natural gas condensate will be characterized in accordance with Title 22 CCR §66261.20. Should the condensate be classified as hazardous, the contents of the fuel gas compressor drain tank will be disposed of every 180 days, transportation and disposal of natural gas condensate will be coordinated with a hazardous waste transporter and a Uniform Hazardous Waste Manifest, provided by the vendor or the WCEP will be used for transportation. The driver transporting the waste will note the quantity on the manifest, and both the driver and a WCEP representative will sign the manifest. The WCEP will keep the original copy of the manifest filed on site and forward a copy of the manifest to the DTSC within 30 days.

#### 2.4.2 Used Natural Gas Filters

Natural gas filters are used to remove liquids and impurities from the natural gas fuel supply. Used filters will be placed in a storage container in the hazardous waste accumulation area. These filters may be classified as RCRA hazardous, non-RCRA hazardous, or non-hazardous waste pending results of characterization analyses performed. Accumulation containers will be stored and labeled accordingly, including the accumulation start date. If hazardous, accumulation time will not exceed 180 days from the accumulation start date.

Filters will be characterized prior to disposal in accordance with Title 22 CCR §66261.20. Transportation and disposal will be coordinated with a hazardous waste transporter. For filters classified as non-hazardous, a non-hazardous waste manifest or bill of lading will be used. The driver transporting the filters will note the number of

containers on the non-hazardous waste manifest or bill of lading and provide appropriate copies to WCEP personnel. For filters classified as hazardous, a Uniform Hazardous Waste Manifest, provided by the vendor or the WCEP will be used. The driver transporting the waste will note the quantity on the manifest, and both the driver and a WCEP representative will sign the manifest. The WCEP will keep the original copy of the manifest filed on site and forward a copy of the manifest to the DTSC within 30 days. A signed copy of the manifest will be provided by the disposal facility.

#### 2.4.3 Absorbent Material Used to Contain or Absorb Oil

Absorbent material is used to contain or absorb oil. Used absorbent materials will be placed in a container in the hazardous waste accumulation area prior to disposal. Absorbent material is presumed hazardous under the classification of California waste code 223 per Title 22 CCR Chapter 11, Appendix XII. The container will be labeled with a hazardous waste label, including the contents and accumulation start date. The accumulation time will not exceed 180 days from the accumulation start date.

Transportation and disposal will be coordinated with a hazardous waste transporter. A Uniform Hazardous Waste Manifest, provided by the vendor or the WCEP will be used. The driver transporting the waste will note the quantity on the manifest, and both the driver and a WCEP representative will sign the manifest. The WCEP will keep the original copy of the manifest filed on site and forward a copy of the manifest to the DTSC within 30 days.

#### 2.4.4 Paint-Related Wastes

Paint-related wastes may consist of liquids such as used thinners, cleaners and paints; and solid materials such as brushes, clean up rags, paint-soaked paper, and drop cloths, which will be discarded. Paint-related wastes will be containerized and stored in the hazardous waste accumulation area. The container lid will remain closed except during transfer of paint-related waste to or from the container. The container(s) will be labeled with a hazardous waste label, including description of the waste and accumulation start date. Accumulation time will not exceed 180 days from the accumulation start date.

If paint-related wastes are hazardous based on generator knowledge due to the characteristic of ignitability they will be shipped under waste code D001. Transportation and disposal will be coordinated with a hazardous waste transporter. A Uniform Hazardous Waste Manifest, provided by the vendor or the WCEP will be used. The driver transporting the paint waste will note the quantity on the manifest, and both the driver and a WCEP representative will sign the manifest. The WCEP will keep the original copy of the manifest filed on site and forward a copy of the manifest to the

DTSC within 30 days. A signed copy of the manifest will be provided by the disposal facility.

#### 2.4.5 Cooling Tower Sludge

The cooling tower basin will be drained and cleaned approximately every 5 to 10 years. Cooling tower sludge will be removed as part of this process and will require disposal off site. Cooling tower sludge removed from the cooling tower basin will be placed in containers and labeled as hazardous or non-hazardous waste, pending results of waste characterization. The labels will include a description of the contents ("Cooling Tower Sludge") and accumulation start date.

Cooling tower sludge will be sampled and characterized prior to disposal in accordance with Title 22 CCR §66261.20. Transportation and disposal will be coordinated with a waste transporter. If cooling tower sludge is classified as non-hazardous, a non-hazardous waste manifest or bill of lading will be used. The driver transporting the cooling tower sludge will note the number of containers on the non-hazardous waste manifest or bill of lading and provide appropriate copies to the WCEP personnel.

If the cooling tower sludge is classified as hazardous, a Uniform Hazardous Waste Manifest, provided by the vendor or the WCEP will be used. The driver transporting the waste will note the quantity on the manifest, and both the driver and a WCEP representative will sign the manifest. The WCEP will keep the original copy of the manifest filed on site and forward a copy of the manifest to the DTSC within 30 days.

#### 2.4.6 SCR and CO Catalyst Units

SCR and CO catalyst units are located in the emissions control modules at each of the five units at the WCEP. SCR and CO catalyst units will have to be changed out every 5 to 10 years.

Material from the SCR and CO catalyst units will be sampled and characterized prior to disposal in accordance with Title 22 CCR §66261.20. If the SCR and CO catalyst units are classified as hazardous, transportation and disposal will be coordinated with a hazardous waste transporter. A Uniform Hazardous Waste Manifest, provided by the vendor or the WCEP will be used. The driver transporting the waste will note the quantity on the manifest, and both the driver and a WCEP representative will sign the manifest. The WCEP will keep the original copy of the manifest filed on site and forward a copy of the manifest to the DTSC within 30 days. A signed copy of the manifest will be provided by the disposal facility.

#### 2.4.7 Expired Chemicals

Expired chemicals associated with water treatment processes, maintenance, and laboratory activities may periodically need to be removed from the facility. Expired chemicals will be characterized for disposal based on information on the associated MSDS and laboratory analysis as needed.

Transportation and disposal of expired chemicals will be coordinated with a hazardous waste transporter. A Uniform Hazardous Waste Manifest, provided by the vendor or the WCEP will be used. The driver transporting the chemicals will note the quantity on the manifest, and both the driver and a WCEP representative will sign the manifest. The WCEP will keep the original copy of the manifest filed on site and forward a copy of the manifest to the DTSC within 30 days. A signed copy of the manifest will be provided by the disposal facility.

#### 2.4.8 Empty Aerosol Containers

Spent aerosol containers that are not completely empty will be managed as a hazardous waste. Spent aerosol containers will be placed in a closed sealed storage container in the hazardous waste accumulation area. Each container will be labeled with a Hazardous Waste label to indicate the contents and the accumulation start date. Accumulation time for spent aerosol containers will not exceed one year from the accumulation start date.

Transportation and disposal of non-empty spent aerosol containers will be coordinated with a hazardous waste transporter. A Uniform Hazardous Waste Manifest, provided by the vendor or the WCEP will be used. The driver transporting the chemicals will note the quantity on the manifest, and both the driver and a WCEP representative will sign the manifest. The WCEP will keep the original copy of the manifest filed on site and forward a copy of the manifest to the DTSC within 30 days. A signed copy of the manifest will be provided by the disposal facility.

#### 2.5 Waste Minimization and Recycling

The WCEP will actively practice waste minimization and recycling efforts to reduce the volume and toxicity of wastes generated during project operations. At minimum, the following waste minimization approaches will be used in daily operations:

- Recycling/re-use of cooling water.
- Best management practices to reduce the volume and toxicity of materials contacting storm water.

- Preventing hazardous material spills through management of materials, performing preventative maintenance on equipment and personnel training.
- Conducting regular inspections of the Waste Accumulation Area to detect and replace damaged or leaking containers.
- Using non-hazardous alternatives when appropriate to meet job specifications.
- Utilizing hazardous materials to the greatest extent possible before disposal.
- Separation of plastic bottles, aluminum cans, paper, cardboard and scrap metal from municipal waste for reclamation (municipal waste collector will separate all other recyclables from trash following pickup).
- Recycling used oil and used oil filters to the maximum extent practicable.
- Recycling spent lead acid batteries to the maximum extent practicable.
- A chemical approval process which will encourage identification of less-toxic alternatives to industrial chemical used at the plant.

#### 3 CONCLUSION

The WCEP will make waste minimization and proper waste management an active and ongoing component of their operations in order to prevent impacts to the environment and maintain compliance with regulatory requirements. That means taking responsibility for the byproducts of operations and the waste that is generated. The success of the WCEP Waste Management and Minimization Program is dependent on the willing and active participation of the entire facility.

#### 4 REFERENCES

Bureau Veritas, 2012. "Hazardous Waste Tank System Assessment, Walnut Creek Energy Park, 911 Bixby Drive, City of Industry, California 91748." December 12.

California Energy Commission, 2008. Final Commission Decision, Walnut Creek Energy Park, Application for Certification (05-AFC-2C), Los Angeles County. February.

County Sanitation Districts of Los Angeles County, 2015. Industrial Wastewater Discharge Permit No. 21596 for the Walnut Creek Energy Park, December 10.

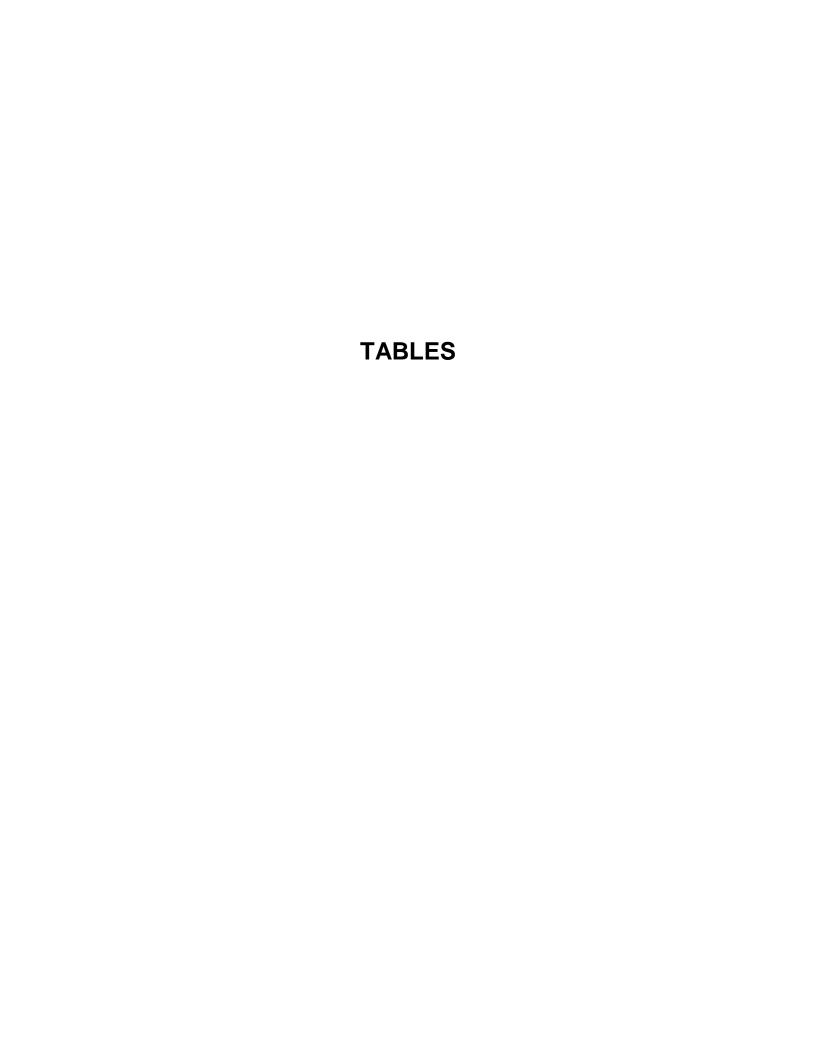


Table 1. Walnut Creek Energy Park Anticipated Waste Streams and Frequency of Generation

Waste Classification	Location/Equipment	Waste Description	Estimated Generation Rate	Waste Storage Location	Accumulation Time Limit (days)
	Facility	Municipal Waste	50 CY/year	Various	N/A
	Facility	Bulk Recyclable Materials	20 CY/year	20 CY/year Various	
	Facility	Empty Containers	50 lb/year	Hazardous Waste Accumulation Area	N/A <sup>1</sup>
Non-Hazardous	CTG Wash Water Tanks (5)	Water with possible traces of oil	2,000 gallons 1-2 times per year	N/A – will be pumped directly to truck for disposal	N/A
	Plant Drains	Wastewater	1 MG/year	N/A	N/A
	Detained Rain Water in Equipment and Tank Secondary Containments	Wastewater	Minimal – Will Vary Annually	N/A	N/A
	Industrial Wastewater Discharge (from Cooling Wastewat Tower Basin)		61 MG/year	N/A	N/A
	Sanitary Waste	Wastewater	65,700 gallons/year	N/A	N/A
Universal	Facility	Spent Consumer Type Batteries	5 lb/year	Warehouse	365

Table 1. Anticipated Waste Streams and Frequency of Generation (continued)

Waste Classification	Location/Equipment		Estimated Generation Rate	Waste Storage Location	Accumulation Time Limit (days)
	Facility	Spent Lamps	5 lb/month	Warehouse	365
	Facility	Consumer Electronic Devices	50 lb/year	Warehouse	365
	Facility Cathode F		5 lb/month	Warehouse	365
	Oil/Water Separator (3)	Used Oil	Minimal; will vary annually	Hazardous Waste Accumulation Area	180
	Lube Oil Skids (5)	Used Oil	8,270 gallons every 6 years per Unit	Hazardous Waste Accumulation Area	180
	Lube Oil Filters	Used Filters	500 lb/year	Hazardous Waste Accumulation Area	180
Recyclable	Equipment Maintenance	Used Oil	300 lb/year	Hazardous Waste Accumulation Area	180
	Diesel Fire Pump Maintenance	Used Oil	120 lb/year	Hazardous Waste Accumulation Area	180
	Fuel Gas Compressors (3)	Used Oil	1500 lb/year	Hazardous Waste Accumulation Area	180
	Facility	Used Lead Acid Batteries	60 lb/year	Hazardous Waste Accumulation Area	365 <sup>3</sup>

Table 1. Anticipated Waste Streams and Frequency of Generation (continued)

Waste Classification	Location/Equipment	Waste Description	Estimated Generation Rate	Waste Storage Location	Accumulation Time Limit (days)
	Fuel Gas Compressor Drain Tank	Waste Condensate	80 lb/month	Fuel Gas Compressor Drain Tank	180
	Fuel Gas Compressor Building	Used Natural Gas Filters	10 filters every 5-10 years	Hazardous Waste Accumulation Area	180
	Facility	Absorbent Material	30 lb/month	Hazardous Waste Accumulation Area	180
Hazardous	Facility	Oily rags	16 lb/month	Hazardous Waste Accumulation Area	180
	Cooling Tower	Sludge	5,000 lb every 5 to 10 years	Hazardous Waste Accumulation Area	90
	Emissions Control Modules (5)	SCR Catalyst Units	600 lb every 5 to 10 years	Hazardous Waste Accumulation Area	90
	Emissions Control Modules (5)	CO Catalyst Units	600 lb every 5 to 10 years	Hazardous Waste Accumulation Area	90
	Facility	Expired Chemicals	Minimal; will vary annually	Hazardous Waste Accumulation Area	180
	Facility	Spent Aerosol Cans	Minimal; will vary annually	Hazardous Waste Accumulation Area	180

#### Notes:

- 1. If container(s) are considered hazardous as described in Section 2.1.3, accumulation time limit is 180 days.
- 2. Accumulation time is Not Applicable because oil will be transferred directly from the equipment to a truck for recycling.

#### Table 1. Anticipated Waste Streams and Frequency of Generation (continued)

3. Accumulation time limit assumes total amount of lead acid batteries accumulated is less than 1 ton. If more than 1 ton of batteries are accumulated, accumulation time limit is 180 days.

#### Acronyms:

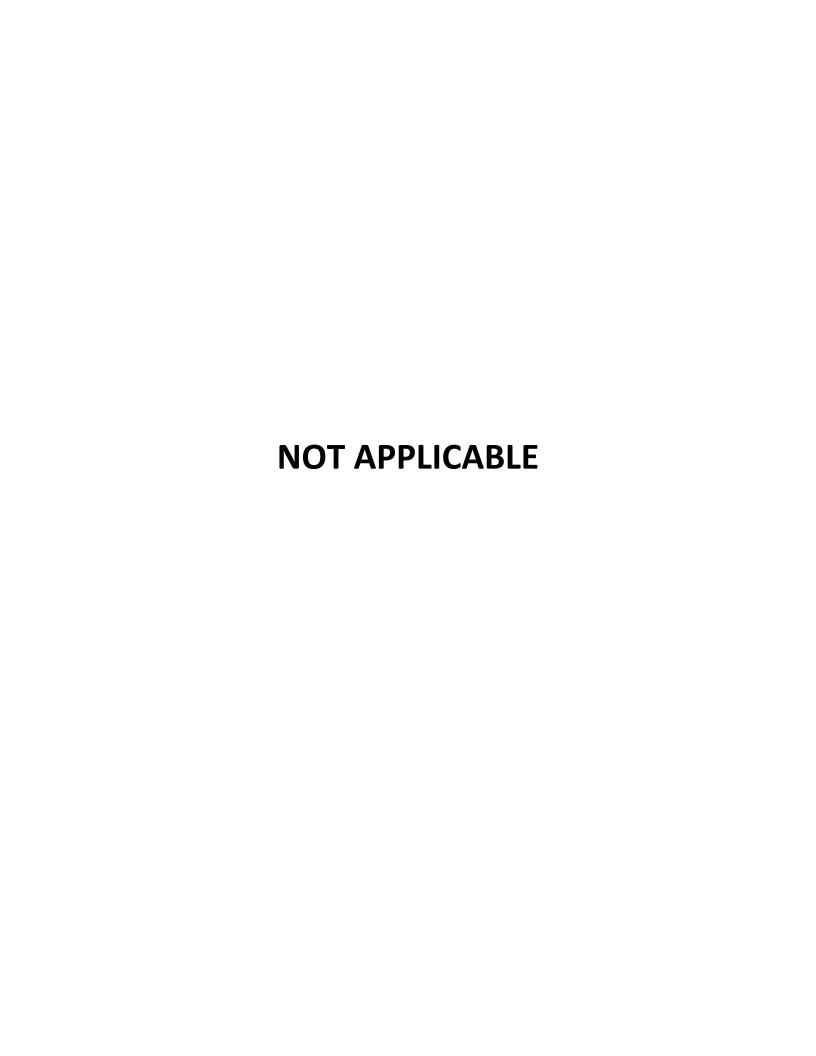
CY Cubic Yard MG Million Gallons N/A Not Applicable

 Table 2.
 Transportation and Disposal Contractors

Contractor Name	Contact Information	Associated Waste Streams		
Valley Vista Services	(800) 442-6454	Municipal Waste		
Safety Kleen	2918 Worthen Ave Los Angeles CA 90039 (323) 660-9562	Empty Containers, Spent Lamps, Spent Aerosol Cans, Hazardous Wastes, Used Oil and Oil Filters		

## **Attachment F**

Water Metering Devices - Testing Documentation (WATER RES-1)



## **Attachment G**

**Permits Issued by Other Government Agencies** 

Updated SCAQMD Title V Permit emailed to	Fric Veerkamp on
August 22, 2018.	zne veerkamp on

# LOS ANGELES COUNTY CERTIFIED UNIFIED PROGRAM AGENCY ADMINISTERED BY LOS ANGELES COUNTY FIRE DEPARTMENT

#### ANNUAL UNIFIED PROGRAM FACILITY PERMIT

Fiscal Year 2018-2019

July 1, 2018 - June 30, 2019

**ISSUED TO: WALNUT CREEK ENERGY PARK** 

WALNUT CREEK ENERGY PARK

911 BIXBY DR.

INDUSTRY, CA 91745

LA Co. CUPA NO. AR: AR0059916

FACILITY OWNER: WALNUT CREEK ENERGY, LLC

FACILITY SITE ADDRESS: 911 BIXBY DR, INDUSTRY, CA 91745

THIS PERMIT IS ISSUED FOR THE FOLLOWING PROGRAMS:

#### Administering Agency:

LA COUNTY FIRE DEPARTMENT LA COUNTY FIRE DEPARTMENT LA COUNTY FIRE DEPARTMENT LA COUNTY FIRE DEPARTMENT

#### **Program Description:**

ABOVEGROUND PETROLEUM STORAGE TANK PROGRAM CALIFORNIA ACCIDENTAL RELEASE PROGRAM (CALARP) HAZARDOUS MATERIALS DISCLOSURE PROGRAM HAZARDOUS WASTE GENERATOR PROGRAM

# THIS PERMIT MUST BE CONSPICUOUSLY DISPLAYED AT THE FACILITY AT ALL TIMES.

ISSUED BY: Darvl L. Osby

County of Los Angeles Fire Chief

ISSUED ON: Nov 6, 2018

EXPIRES ON: October 31, 2019

This permit is valid only for the above location and is subject to ALL REQUIREMENTS of State and local laws and regulations.

This permit is non-transferrable and is void upon change in ownership or location.

If you are in operation on or after July 1, 2019, your business will be responsible for payment of permit fees for the next annual billing cycle. You must contact this Department prior to this date and arrange for an inspection to verify non-operational status to cancel permit fees for the next annual billing cycle. You may continue to operate under this permit until the payment for the next billing cycle is made to this Department by the established invoice due date. Invoice due date for permit fees may vary from year to year.

8000.rpt ver.j IN0293665

This permit is valid only for the above location and is subject to all requirements of State and local laws. The permit is non-transferrable and is void upon change in ownership or location. You must report all changes in ownership, mailing address, and business closure to the Health Hazardous Materials Division at (323) 890-4000.

#### **Permit Conditions**

The permittee must comply with the following applicable program requirements including all local County and City ordinances. Failure to comply with the following may result in criminal, civil or administrative enforcement action, or revocation of this permit:

<u>Hazardous Materials Program</u>: California Health and Safety Code, Division 20, Chapter 6.95, Article 1, the California Code of Regulations, Title 19, and the California Fire Code, Title 24, Part 9, Chapter 27, Sections 2701.5.1 and 2705.2.

<u>California Accidental Release Prevention Program</u>: California Health and Safety Code, Division 20, Chapter 6.95, Article 2, and the California Code of Regulations, Title 19.

<u>Hazardous Waste Generator Program</u>: California Health and Safety Code, Division 20, Chapter 6.5, Article 1-13, Section 25100 et seq., and the California Code of Regulations, Title 22, Division 4.5, Chapters 10, 11, 12, and 31.

<u>Tiered Permit Hazardous Waste Treatment and Onsite or Offsite Recycler</u>: California Health and Safety Code, Division 20, Chapter 6.5, Section 25200

Aboveground Petroleum Storage Tank Program: California Health and Safety Code, Division 20, Chapter 6.67, Section 25270 et seq.

<u>Underground Storage Tank (UST) Program</u>: California Health and Safety Code, Division 20, Chapter 6.7, the California Code of Regulations, Title 23, Chapters 16 and 18, and appropriate local codes.

The permittee that is operating an UST must comply with the following:

- Maintain all UST related information in a complete and accurate manner that is accessible for inspection.
- Comply with the requirements of the California Code of Regulations, Chapter 16, Article 5 in the event of a spill, leak, or other unauthorized release. Additionally, the permittee must comply with a release response plan approved by the administering agency.
- The approved monitoring, response, and plot plans shall be accessible on site with the permit.
- Must notify the administering agency within 30 days of any changes in the usage of any UST including: storage of a new hazardous substance, change in monitoring procedures, and change in owner or operator.
- Perform yearly maintenance testing of all leak detection equipment and provide documentation of such testing to the administering agency.
- Obtain approval from the administering agency and local fire and building authorities prior to modifying any UST system.
- Ensure that written records of all monitoring and maintenance records performed is maintained on site by the operator and is available for inspection for the period specified in California Code of Regulations, Chapter 16, Article 10.
- Submit annual permit fees.

# **Attachment H**

**Projected Compliance Activities in 2019** 

WALNUT CREEK ENERGY PARK 2019 REGULATORY COMPLIANCE SCHEDULE												
Jan   Feb   Mar   April   May   June   July   Aug   Sept   Oct   Nov   De						Dec						
1304 Quarterly Fuel and Energy Report		Х			Χ			Х			Х	
40 CFR Part 75 Annual GHG Report			Х									
Annual Compliance Report		X										
Annual Emissions Report			Х									
Annual NH3 Source Test/NOx & CO RATA Notification			Х									
Annual NH3 Source Test/NOx & CO RATA Protocol		Х										
Annual NH3 Source Test/NOx & CO RATA Reports					Х							
Annual NH3 Source Test/NOx & CO RATAs				Χ								
Annual Wastewater Surcharge Report								X				
Backflow Inspection												Х
CARB Annual GHG Report				Χ								
Low Level Calibration Error Reports - CO								X				
Low Level Calibration Error Testing - CO							Х					
Monthly Emissions Report	X	Х	Х	Х	Х	Х	Х	Х	X	Х	X	X
Monthly SPCC Inspection	X	Х	Х	Х	Х	Х	Х	Х	X	Х	X	Х
NSPS Report	X											
Obtain SO2 Allowances		X										
Quarterly 40 CFR Part 75 Linearities			Χ			Х			X			Х
Quarterly Acid Rain EDR							Х			Х		
Quarterly Emissions Report				Х			Х			Χ		
Quarterly Operations Report				Х			Х			Х		
Quarterly SCAQMD CGAs			Х			Х			X			X
Quarterly Wastewater Self Monitoring Report				Х			Х			Χ		
Reclaim APEP Report		X										
Rule 218 CO Monitoring Report	Х											
Semi-Annual NOx RATA Notification											X	
Semi-Annual NOx RATA Protocol										Χ		
Semi-Annual NOx RATAs											X	
Title V Annual Compliance Certification		Х										
Title V Semi-Annual Monitoring Report								X				

Wastewater Surcharge & SMR Sampling

# Attachment I

**On-Site Contingency Plan** 



#### 05-AFC-2C

## **COM-12**

# <u>Unplanned Temporary Closure/On-Site Contingency</u> <u>Plan</u>

February 24, 2016

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Table 8-1	Walnut Creek Energy Park Chemical Inventory
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#### **ATTACHMENTS**

Attachment A Site Maps

Attachment B Organizational Chart

Attachment C Lockout/Tagout Procedure

Attachment D Insurance Summary

#### **Abbreviations and Acronyms**

AFC Application for Certification

CEC California Energy Commission

COC Condition of Certification

CPM Compliance Project Manager

EAP Emergency Action Plan

EPC Engineering, Procurement, and Construction

GE General Electric

WCEP Walnut Creek Energy Park

#### 1 Introduction

Unexpected temporary or short-term cessation of operations can result from a number of unforeseen circumstances. Conditions such as lack of fuel, oversupply of electricity, mechanical failure, or other factors, may force Walnut Creek Energy Park (WCEP) to be shut down temporarily. Natural disasters such as earthquakes may also result in temporary shutdowns.

For short-term, unexpected temporary cessation of operations of periods less than 12 months that do not involve facility damage, WCEP would be maintained in an operational state until the unexpected condition or event ceases to restrict operations.

In order to ensure that public health and safety and the environment are protected in the event of an unplanned temporary facility closure, it is essential to have an on-site contingency plan established. This on-site contingency plan will be used to ensure that all necessary steps to mitigate health, safety, and environmental impacts are addressed according to local, state, and federal regulations, in a timely manner.

#### 2 Purpose

The purpose of this Facility Unplanned Temporary Closure Contingency Plan is to provide general and specific instructions for safely shutting down power generating equipment, short-term lay-up of critical equipment, removal of hazardous materials from the site, and for short-term monitoring and security of the facility. Prior to facility commercial operations, this plan will be submitted to the California Energy Commission (CEC) Compliance Program Manager (CPM) for review and approval. This Plan will be kept at the site at all times.

#### 3 General Facility Identification Information

Facility information is provided in Table 3-1 below. A site layout map and map showing the nearby road network and transit corridors are provided in Attachment A. An organizational chart providing the name and photo identification for senior plant personnel is provided in Attachment B.

Table 3-1: General Facility Information					
Facility Name	Walnut Creek Energy Park (WCEP)				
Owner	Walnut Creek Energy, LLC 911 Bixby Drive City of Industry, CA 91745				
Physical Address	911 Bixby Drive City of Industry, CA 91745				
Mailing Address	911 Bixby Drive City of Industry, CA 91745				
Facility Key Contacts					
Rick McPherson, Plant Manager	(626) 968-0360				
Mike Baker, Plant Supervisor	(626) 968-0360				
Facility Phone Numbers					
Administration Building Office	(626) 968-0360				
Control Room	(626) 968-8350				
Fax Number	(626) 968-0379				

## 4 Plant Location and Description

The site for the WCEP project is an 11.48-acre parcel located in the City of Industry. The facility is owned and managed by Walnut Creek Energy, LLC.

WCEP is located within an industrial area that includes warehousing, manufacturing and transportation (railroad and intermodal rail/truck yard) uses, electric transmission lines, the San Jose Creek Flood Control Channel, and the Southern California Edison Walnut Substation. Residential areas are located in the City of La Puente to the north, beyond the industrial areas that are adjacent to the project site, and in unincorporated areas of the Los Angeles County community of Hacienda Heights to the south. The

nearest residence is located approximately 0.21 miles south of the site in Hacienda Heights. A map showing surrounding land uses is provided in Attachment A.

WCEP is a nominal 500-megawatt (MW) simple-cycle power plant, consisting of the following components:

- Five 100-MW General Electric (GE) LMS100 natural gas-fired combustion turbine-generators, each equipped with water injection capability to reduce nitrogen oxide (NOx) emissions, and:
  - Selective catalytic reduction equipment containing catalysts to further reduce NOx emissions;
  - Oxidation catalyst to reduce carbon monoxide emissions;
  - ➤ Inlet air filter house with evaporative cooler; and
  - > Turbine inter-cooler.
- One four-cell mechanical-draft cooling tower;
- Three natural gas compressors;
- Generator step-up and auxiliary transformers; and
- Associated balance of plant equipment.

#### 5 Communication with Responsible Agencies

In the event of an emergency, WCEP personnel will follow response and notification procedures outlined in the Emergency Action Plan (EAP) submitted under Condition of Certification (COC) WORKER SAFETY-2. Incidents will be reported to the CPM and to the appropriate agencies as determined by the nature of the incident. Emergency telephone numbers are provided in Table 5-1 below. An incident report will also be filed internally.

In the event an emergency leads to an unplanned temporary closure of the WCEP facility, Walnut Creek Energy, LLC will notify the CPM, as well as other responsible agencies, by telephone, fax, or e-mail, within 24 hours. Walnut Creek Energy, LLC will take all necessary steps to implement this plan for the specified duration of the closure. Walnut Creek Energy, LLC will keep the CPM informed of the circumstances and expected duration of the closure.

If Walnut Creek Energy, LLC determines that an unplanned temporary closure of the facility is likely to be permanent or for duration of more than 12 months, a closure plan consistent with the requirements of a long term planned closure shall be developed.

For purposes of this Facility Temporary Closure Contingency Plan, only periods of site closure less than 12 months duration are addressed.

In the event of an unplanned permanent closure, Walnut Creek Energy, LLC will notify the CPM, as well as other responsible agencies, by telephone, fax, or e-mail, within 24 hours and will take all the necessary steps to implement this plan. Walnut Creek Energy, LLC will keep the CPM informed of the circumstances and expected duration of the closure.

Table 5-1: Walnut Creek Energy Park Emergency Phone Numbers				
Name/Organization	Phone Number			
Emergency Responders				
Fire Department	911 or (626) 854-3488			
Ambulance	911 or (626) 961-0460			
Sheriff	911 or (909) 595-3649			
<b>Emergency Cleanup Contractor</b>				
Safety-Kleen	888-375-5336.			
Primary Medical Facility				
Whittier Hospital Medical Center 9080 Colima Road Whittier, CA 90605	(562) 945-3561			
Secondary Medical Facilities				
Aurora Charter Oak Hospital 1161 E. Covina Blvd. Covina, CA 91724	(800) 654-2673			
Queen of the Valley Hospital 1115 South Sunset Avenue West Covina, CA 91790	(626) 962-4011			

Table 5-1: Walnut Creek Energy Park Emergency Phone Numbers				
Name/Organization	Phone Number			
Government Agencies				
California Occupational Safety & Health West Covina District Office	(626) 472-0046 (626) 472-7708 (Fax)			
Los Angeles County Environmental Health Services – East San Gabriel 1435 West Covina Parkway, Room 10 West Covina, CA 91790	(626) 813-3380			
California Office of Emergency Services	(800) 852-7550 or (916) 262-1621			
Cal EPA/Department of Toxic Substances Control	(916) 323-6042			
US EPA Region IX 600 Wilshire Boulevard, Suite 1460 Los Angeles, CA 90017	(213) 244-1800 (213) 244-1850 (Fax)			
National Response Center	(800) 424-8802			
South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765	(909) 396-2000			
Customers/Utilities	1			
SCE Dispatcher	(559) 734-1786 or (559) 735-2301 (Rector Sub)			
Southern California Gas Company	(800) 858-5601			

Table 5-1: Walnut Creek Energy Park Emergency Phone Numbers					
Name/Organization	Phone Number				
Rowland Water District	(562) 697-1726 (562) 697-6149 (Fax)				
Union Pacific Railroad	(888) UPRRCOP (877-7267)				

#### 6 Equipment Shutdown and De-Energization (Less than 90 Days)

For periods of facility closure of up to 90 days duration, Walnut Creek Energy, LLC will take the following non-inclusive steps to safely shut down and de-energize WCEP power generating equipment:

- Back feed electrical power will be maintained to the facility to ensure power to critical control equipment, circulating water systems, communication, and security systems.
- ➤ If there is a loss of back feed power, the WCEP site is equipped to use a portable generator for backup power.
- Fuel gas systems will be isolated to the facility and all in plant systems depressurized.
- ➤ Gas Turbine generators will be prepared for layup per GE LMS100 Gas Turbine OEM Manual
- ➤ Cooling systems will be circulated once per week by WCEP personnel. Chemistry of water cooling systems will be maintained during the 90-day period of facility closure.
- Wastewater treatment equipment will be drained, flushed, and placed in normal short-term lay-up condition.
- ➤ Gas turbine, small pumps, fans, and motors will be cycled per manufacturer's recommendation to maintain operability. Gas turbines will motor weekly.
- ➤ WCEP operations staffing is expected to remain at normal operating levels during this period.
- ➤ Potable water system remains in service.

### 7 Equipment Shutdown and De-Energization (Greater than 90 Days)

For periods of facility closure greater than 90 days and less than 12 months duration with no damage to facility, Walnut Creek Energy, LLC will take the following non-inclusive steps to safely shut down and de-energize WCEP power generating equipment and prepare for short-term lay-up:

- Back feed electrical power will be maintained to the facility to ensure power to critical control equipment, circulating water systems, communication, and security systems.
- ➤ If there is a loss of back feed power, the WCEP site is equipped to use a portable generator for backup power.
- ➤ Fuel gas systems will be isolated to the facility and all in plant systems depressurized.
- ➤ Gas turbine generators will be prepared for layup per GE LMS100 Gas Turbine OEM Manual.
- All water treatment systems will be fully isolated, drained, and placed in short term lay-up conditions as recommended by equipment manufacturer recommendation.
- ➤ Cooling systems will be fully isolated, drained, and placed in short-term lay-up conditions per manufacturer recommendations.
- ➤ Wastewater treatment equipment will be drained, flushed, and placed in normal short-term lay-up condition.
- ➤ Large motors will be electrically dehumidified per manufacturer recommendations.
- ➤ Small pumps will be drained and flushed. Waste from this cleaning process will be handled in accordance with the WCEP Waste Management Plan.
- Ammonia, sulfuric acid, sodium hypochlorite, all waste water treatment chemicals, and cooling tower chemistry control chemicals will be removed from the site.
- ➤ All transformers and gas turbines will remain full of mineral/lubricating oil and monitored on a daily basis for leaks.
- ➤ WCEP staffing will be adjusted accordingly.

➤ Potable water system will remain in service.

#### 8 Removal of Hazardous Materials and Wastes

Walnut Creek Energy, LLC will manage removal of all required hazardous materials and wastes through contracted vendors. Depending on the expected duration of the temporary cessation of operations, chemicals may be drained from storage tanks and other equipment. Refer to Table 8-1 below, Chemical Inventory, for a list of chemicals used at WCEP. Table 8-2 summarizes anticipated waste streams at WCEP.

For closures of more than 90 days, Walnut Creek Energy, LLC will remove all hazardous materials and hazardous wastes from WCEP. Tank cleaning of all chemical storage tanks will also be accomplished through approved vendors. Once the tanks are drained and cleaned, all openings will be sealed and power isolated using the Walnut Creek Energy, LLC Lockout/Tagout procedure (Procedure No. WC-08-01-20 [Attachment C]). All tanks will be inspected every three months, and a log kept of the inspections. At the end of the closure period, all tanks used for hazardous waste storage will be inspected to meet new tank requirements of Title 22 California Code of Regulations.

For hazardous materials decontamination, cleanup, and removal services, Walnut Creek Energy, LLC will contact the contracted Emergency Response vendor listed in the EAP submitted under COC WORKER SAFETY-2.

Table 8-1: Walnut Creek Energy Park Chemical Inventory				
Area Description	Chemical Name	Trade Name on HMIS/MSDS	CAS Number	Quantity On Site
	Sodium Hydroxide (30%)	BWT-100-A	1310-73-2	300 gal
	Sodium Hypochlorite (12.5%)	Sodium Hypochlorite 12.5%	7681-52-9	1,600 gal
	Coagulant	Megafloc 785	None	12 gal
	Sodium Bisulfite	BWT-104	7631-90-5	300 gal
Water Treatment Chemicals	Scale Inhibitor	RO 503	None	300 gal
water Treatment Chemicals	Cooling Water Biocide	BioTrol 509	None	300 gal
	Sodium Bromide	BioTrol 140	7647-15-6	10 gal
	Reverse Osmosis Biofouling Cleaner	ROC 50 KBT	None	55 gal
	Reverse Osmosis Scalant Cleaner	ROC 20 KBT	None	55 gal
	Corrosion/Scale Inhibitor	TowerFlex	None	300 gal
	Sodium Hypochlorite (12.5%)	Sodium Hypochlorite 12.5%	7681-52-9	2,200 gal
Cooling Tower Chemicals	Sulfuric Acid (93%)	Sulfuric Acid	7664-93-9	3,000 gal
Cooling Tower Chemicals	Sodium Bromide	BioTrol 140	7647-15-6	500 gal
	Corrosion/Scale Inhibitor	TowerFlex	None	2,200 gal
	CT Lube Oil (Mineral Lube Oil)	Mobil DTE Light	None	8,275 gal per turbine
Combustion Turbine AUX Skid (5 total)	CT Lube Oil (Synthetic Oil)	Mobil Jet II	None	177 gal per turbine and one 55 gal drum
Combustion Turbine CT Enclosure (5 total)	CT Lube Oil (Hydraulic Lube Oil)	Mobil DTE 26	None	55 gal per turbine
Fuel Gas Compressor (3 total)	Fuel Gas Compressor Lube Oil - SAE 40	Mobil Pegasus 805	None	152 gal per compressor
Aqueous Ammonia Containment	Aqueous Ammonia (19%)	Aqueous Ammonia (19%)	1336-21-6	112,000 lb
Breakers (8 total)	Sulfur Hexafluoride	Sulfur Hexafluoride	2551-62-4	50 lb per breaker
Transformers (5)	Mineral Oil	Hytrans 61	None	10,700 gal per transformer
Transformers (2)	Mineral Oil	Hytrans 61	None	6,896 gal per transformer
Emergency Firepump Engine	Diesel Fuel No. 2	Diesel Fuel No. 2	68476-34-6	300 gal
	Lead Acid Batteries	Lead Acid Batteries	7664-93-9	9.2 gal

## **Chemical Inventory Cont**

Area Description	Chemical Name	Trade Name on HMIS/MSDS	CAS Number	Quantity On Site
	Laboratory Reagents (Liquid)	Various	None	20 gal
Warehouse	Laboratory Reagents (Solid)	Various	None	100 lb
	Cleaning Chemicals & Detergents	Various	None	20 gal
Water Treatment Electrical Room/5KV Building/Unit 1-5 PCMs	Lead Acid Batteries	Lead Acid Batteries	7664-93-9	2132 gal
Oil Storage Building	Highly Refined Mineral Oil	D-A Lubricants Reliant	None	55 gal
	CT Lube Oil (Mineral Lube Oil)	Mobil DTE Light	None	165 gal
	Hydraulic Fluid	Mobil DTE Excel 46 oil	None	165 gal
	CT Lube Oil (Hydraulic Lube Oil)	Mobil DTE 26	None	55 gal
	Turbine Oil	Mobile DTE Oil Heavy Medium	None	20 gal
	Hydraulic Fluid	Mobile DTE 25	None	15 gal
	Diesel Fuel No. 2	Diesel Fuel No. 2	68476-34-6	110 gal
	CT Lube Oil (Synthetic Oil)	Mobil Jet II	None	110 gal
	Cylinder Oil	Mobil 600 W Super Cylinder Oil	None	55 gal
	Fuel Gas Compressor Lube Oil - SAE 40	Mobil Pegasus 805	None	55 gal
	Gas Turbine Water Wash Solution	Conntect 6000	111-76-2	165 gal

#### **Notes:**

1 Waste Type provided is anticipated; waste will be profiled prior to disposal.

Table 8-2: Walnut Creek Energy Park Anticipated Operations Waste Streams			
Location/Equipment	Waste Description	Waste Type	
Fuel Gas Compressor Drain Tank	Waste Oil	Hazardous <sup>1</sup>	
Combustion Turbine Generator Wash Water Tanks (5)	Water with possible traces of oil	Non-hazardous <sup>1</sup>	
Oil/Water Separator (3)	Used Oil	Recyclable	
Cooling Tower	Sludge	TBD <sup>1</sup>	
Lube Oil Skids (5)	Used Oil	Recyclable	
Lube Oil Filters	Used Filter	Recyclable	
Small Equipment Maintenance (i.e. forklift)	Used Oil	Recyclable	
Diesel Fire Pump	Used Oil	Recyclable	
Fuel Gas Compressors (3)	Used Oil	Recyclable	
Multiple Locations	Fluorescent Tubes	Universal	
Multiple Locations	Empty Aerosol Cans	Universal	
Multiple Locations	Used Batteries	Recyclable	

## 9 Site Security

For periods of facility closure of less than 90 days, Walnut Creek Energy, LLC will maintain staffing levels and conduct routine shift rotations as under normal operating levels. Walnut Creek Energy, LLC personnel will act as facility security 24 hours per

day, 7 days per week and will manage site security in accordance with the Site Security Plan prepared in accordance with COC HAZ-9.

For periods of site closure that extend past 90 days duration, but are less than 12 months, Walnut Creek Energy, LLC will maintain a work force necessary to meet the security requirements of the Site Security Plan. This includes routine site walk downs, management of security camera and intrusion detection systems, and physical security of plant equipment.

#### 10 Routine Monitoring

During regular operations, a 3<sup>rd</sup> party will perform compliance audits periodically. The first aid kit supplier will visit the site monthly and additionally as needed to inventory and restock first aid kits, including replacement of expired items. All plant personnel will receive initial training and annual refresher training as outlined in the EAP submitted under COC WORKER SAFETY-2. During a short-term facility closure period, the above measures will remain in place.

In addition to physical security monitoring of the WCEP site described in Section 9, Walnut Creek Energy, LLC will conduct routine monitoring of power generating equipment, circulating water systems, chemistry controls, lay-up status, and storm water drainage systems during the short-term facility closure period. The facility will be under 24-hour recorded surveillance and all normal, operating security procedures will be observed by Walnut Creek Energy, LLC.

During the short-term closure period, Walnut Creek Energy, LLC will comply with all equipment manufacturers' repair and recordkeeping requirements. Any spill release reporting and investigative requirements, release response and corrective action requirements will be reported in accordance with the Site Emergency Action Plan, Spill Prevention, Control, and Countermeasures Plan, Hazardous Materials Business Plan, and CalARP Risk Management Plan.

#### 11 Warranties and Insurance

A summary of construction insurance and projected operations insurance is provided in Attachment D. A summary of warranties is provided in the subsections below.

#### 11.1 Engineering, Procurement, and Construction Contract Warranty

The Engineering, Procurement, and Construction (EPC) Contractor warrants to the Owner that all Equipment shall:

- (i) be new and of good quality,
- (ii) be free from improper workmanship and Defects, and
- (iii) conform to all applicable requirements of all Applicable Laws and all Applicable Permits.

The warranty period for the EPC Contract warranty is 24 months following substantial completion of each unit.

#### 11.2 General Electric Equipment Warranty

The Seller (GE) warrants to the Purchaser (Walnut Creek Energy, LLC) that

- (i) the Equipment,
  - (A) shall be fit for the purpose of generating electric power when operated in accordance with the Seller's specific written operation instructions and, in the absence thereof, in accordance with generally accepted operation practices of the electric power producing industry,
  - (B) shall be free from defects in material, workmanship and title, and
  - (C) materially comply with the Scope of Work as described in Attachment 2 of the Contract; and
- (ii) the Services shall be performed in a competent, diligent manner.

The warranty period for the GE equipment warranty is 18 months following substantial completion of each unit.

#### 12 Plan Revisions

Walnut Creek Energy, LLC, in consultation with the CPM, will update this plan as necessary. The CPM may require revisions to the plan over the life of the project. At a minimum, this plan will be reviewed annually by Walnut Creek Energy, LLC and recommended changes to bring the plan up to date, if any, will be reported in the Annual Compliance Report submitted to the CEC. Any changes to the plan must be approved by the CPM.

The revision history of this plan is summarized and tracked on the Revision Log (Table 2). The current revision date and revision number are indicated in Table 2 below.

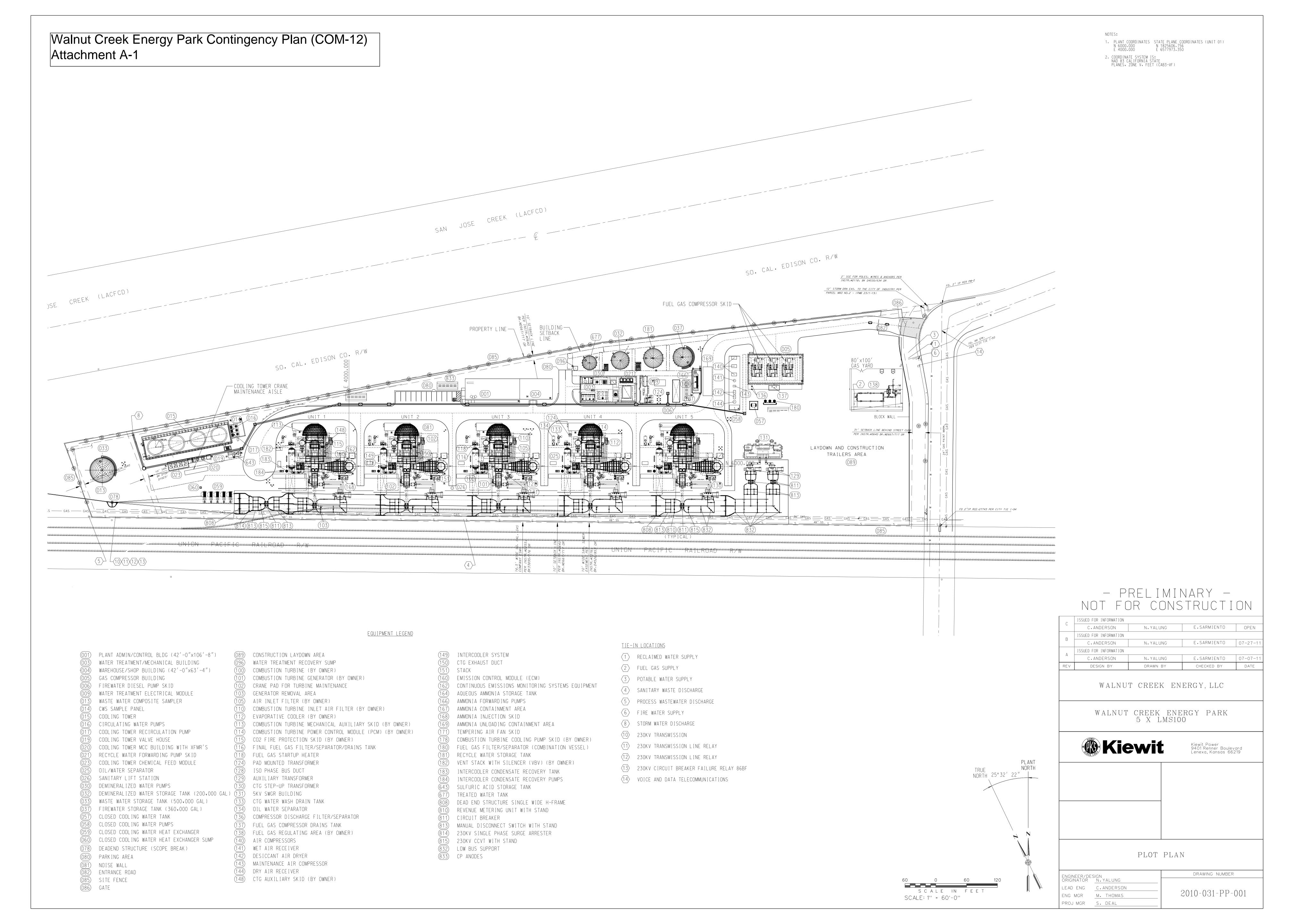
Revision	Revision	Reason for Change	Revision	Date
No.	Date	_	By	
00	4/22/2013	Initial Development of Plan	Rick	4/22/2013
			McPherson	
01	2/26/2015	Update to: Chemical Inventory,	Heather	2/26/2015
		Owner Address, Facility Fax	MacLeod	
		Number, Emergency Cleanup		
		Contractor Telephone Number		
		and Attachment A-5 Emergency		
		Equipment Locations.		
02	2/24/2016	Update to: Chemical Inventory,	Heather	2/24/2016
		Emergency Equipment Locations.	MacLeod	
		& Evacuation Facility Map		

# Walnut Creek Energy Park

# Unplanned Temporary Closure/On-Site Contingency Plan (COM-12)

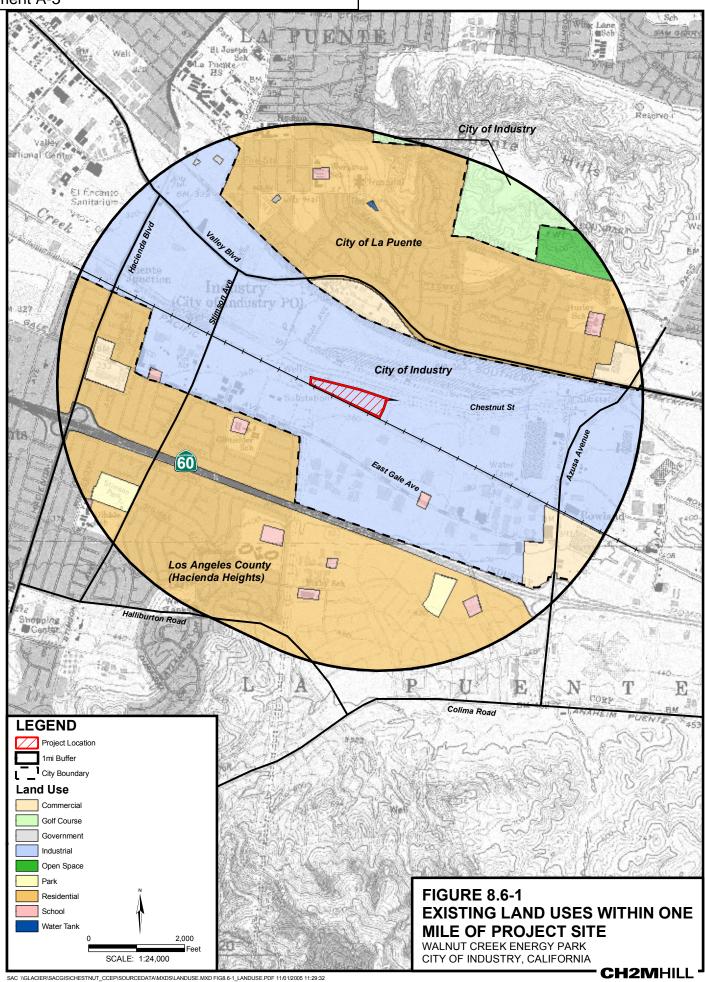
# Attachment A - Site Maps

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Attachment A-2	Site Vicinity Map (Figure 1.1-2 from AFC)	
Attachment A-3	Surrounding Land Uses (Figure 8.6-1 from AFC)	
Attachment A-4	Evacuation Route Map (from Appendix D to	
	EAP submitted under WORKER SAFETY-2)	
Attachment A-5	Emergency Equipment Locations (from	
	Appendix C to EAP submitted under WORKER	
	SAFETY-2)	
Attachment A-6	Facility Layout – Aerial Photo	



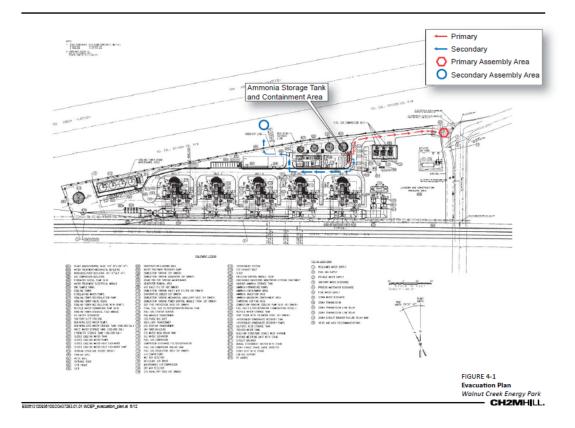
Walnut Creek Energy Park Contingency Plan (COM-12) Attachment A-2 JARTE AZU. **GLENDORA** RWINDALE MAP LOCATION SAN DIMAS **EL MONTE** WEST COVINA WALNUT PROJECT LOCATION HACIENDA HEIGHTS DIAMOND BAR ROWLAND HEIGHTS LA HABRA HEIGHTS **LEGEND** PROJECT LOCATION **HIGHWAYS** LOCAL ROADS **RAILROADS** CITY LIMITS FULLERTON COUNTIES **FIGURE 1.1-2** WALNUT CREEK ENERGY PARK CITY OF INDUSTRY, CALIFORNIA BUENA PARK SCALE: 1:126,720 **CH2M**HILL 

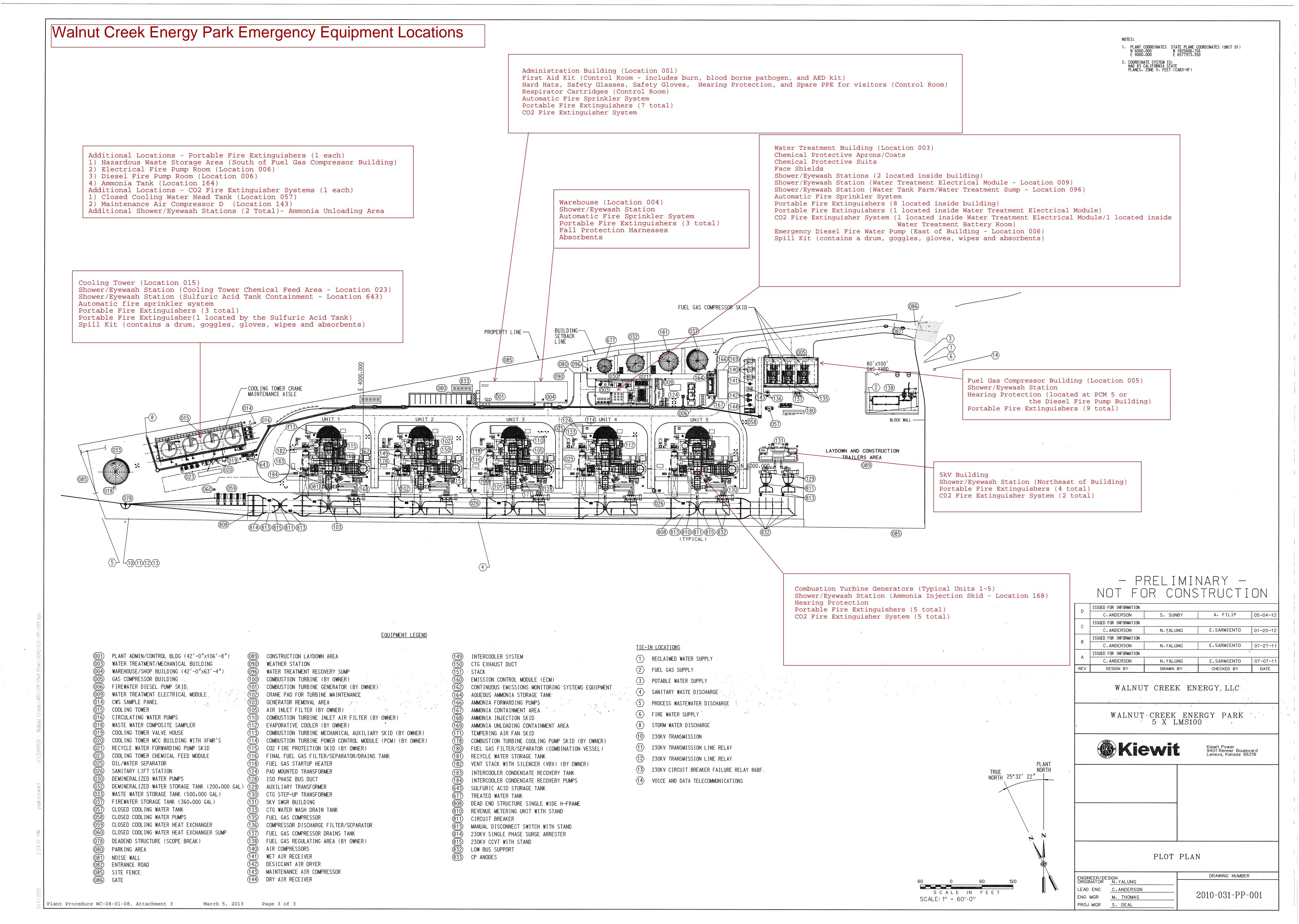
Walnut Creek Energy Park Contingency Plan (COM-12)
Attachment A-3



## Appendix D-Facility Map

This section contains <u>facility map</u>, <u>emergency evacuation assembly location(s)</u>, and <u>building and site evacuation routes</u>.





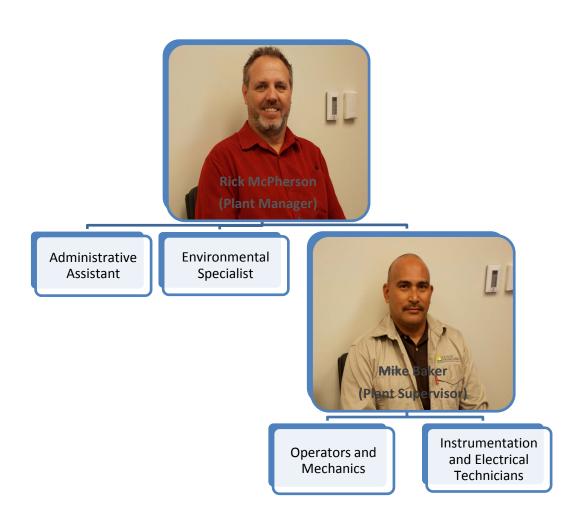
## Walnut Creek Energy Park (Docket No. 05-AFC-2C) Unplanned Temporary Closure/On-Site Contingency Plan Attachment A-6



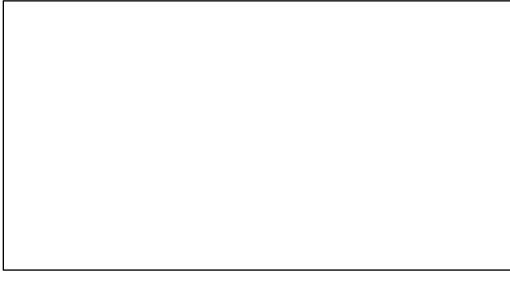
# Walnut Creek Energy Park Unplanned Temporary Closure/On-Site Contingency Plan (COM-12)

Attachment B - Organizational Chart

# Walnut Creek Energy Park Organizational Chart



# **Attachment C - Lockout/Tagout Procedure**



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#### 1.0 Purpose and Scope

- 1.1. This procedure establishes the minimum work site requirements to ensure that, before any person performs maintenance or inspection on equipment where the unexpected energizing, startup, or release of stored energy could occur and cause injury, the machine or equipment is isolated from hazardous energy sources and rendered inoperative.
- 1.2. This procedure meets the requirements of <u>29 CFR 1910.269(d)</u>, and <u>29 CFR 1910.147</u>.
- 1.3. This procedure applies to:
  - 1.3.1. All employees, contractors and vendors who:
    - Perform Lockout/Tagout (LOTO) functions on equipment.
    - Perform maintenance or inspection on equipment.
    - Work in an area where the LOTO process is being used on equipment.
  - 1.3.2. Equipment that must be isolated from hazardous energy sources to perform maintenance or inspection.
  - 1.3.3. LOTO is required when an individual is required to:
    - Remove or bypass a guard or other safety device.
    - Place any part of their body into an area on a machine or piece of equipment where an associated danger zone exists during its operation.
    - Place any part of their body in or near a system containing hazardous energy in such a way that the individual could be injured by exposure to the hazardous energy source.
    - Perform work on or near any de-energized electrical conductors or components.
- 1.4. This procedure does NOT apply to the following:
  - 1.4.1. Work on cord and plug connected electric equipment for which exposure to the hazards of unexpected energization or start-up of the equipment is controlled by both:
    - The unplugging of the equipment from the energy source.
    - The plug being under the exclusive control of the individual performing the servicing or maintenance.
  - 1.4.2. Work on or near energized electrical circuits or components where deenergization is not practical or energization is necessary for troubleshooting.
  - 1.4.3. Hot tap operations involving transmission and distribution systems for substances such as gas, steam, water or petroleum products when they are performed on pressurized pipelines, provided that the site management demonstrates that continuity of service is essential, shutdown of the system is impractical, documented procedures are followed and special equipment is used which will provide proven effective protection for individuals.

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1.4.4. For in service equipment: Minor tool changes and adjustments, and other minor servicing activities which take place during normal production while the equipment is in operation, are not covered by this procedure if they are routine, repetitive, and integral to the use of the equipment for production provided that the work is performed using alternative measures which provide effective protection.

- 1.4.5. No LOTO Documentation Required.
  - 1.4.5.1. With LOTO Authority permission, a LOTO need not be documented when ALL of the following elements exist:
    - The machine or equipment has a single energy source which can be readily identified and isolated.
    - The machine or equipment has no potential for stored or residual energy or re-accumulation of stored energy after shut down which could endanger individuals.
    - The isolation and locking out of that energy source will completely de-energize and deactivate the machine or equipment.
    - The machine or equipment is isolated from that energy source and locked out during servicing or maintenance.
    - A single Lockout device will achieve a locked-out condition.
    - The Lockout device is under the exclusive control of the individual performing the servicing or maintenance.
    - The servicing or maintenance does not create hazards for other individuals.
    - Each facility utilizing this exception has had no accidents involving the unexpected activation or re-energization of the machine or equipment during servicing or maintenance.

Life Critical Step

#### 1.5. Life Critical Steps

1.5.1

The Life Critical Steps are identified as the most critical steps performed in the LOTO Process to ensure employee safety. These steps are noted in this procedure (as shown by the box to the left of the step) to maintain the focus on these critical steps. They are as follows:

- Approve the Written LOTO Request
- Develop the LOTO
- Verify the Equipment Specific Isolation Procedure
- Identify Hazards and Conduct Pre-Job Briefing (applying LOTO)
- Isolate the Energy Sources and Hang Tags and Locks
- Perform Independent Verification Walk Down
- Verify the Isolation by Testing
- Verify the LOTO is Adequate
- Sign-off When Complete by all LOTO Holders
- Identify Hazards and Conduct Pre-Job Briefing (removing LOTO)
- Remove the Tags and Locks
- LOTO Removal and Equipment Restoration

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#### 2.0 Prerequisites

- 2.1. Training
  - 2.1.1. Training shall be provided to ensure NRG employees who place a LOTO on equipment, or perform maintenance or inspection, understand the applicable LOTO procedure.
  - 2.1.2. Training for Authorized employees shall ensure the following:
    - Purpose and function of the LOTO procedure are understood by Authorized Employees.
    - Knowledge and skills required for the safe application, usage and removal of the energy controls are acquired by employees.
  - 2.1.3. Annual re-training shall occur to ensure that individuals maintain knowledge of the purpose and process of the LOTO Procedure.
  - 2.1.4. Retraining shall be provided for individuals when either:
    - There is a change in their job assignment, equipment they operate, maintain, or inspect, or in the LOTO procedure.
    - Additional retraining shall also be conducted whenever an inspection reveals, or the employer has reason to believe that there are deviations from or inadequacies in the employee's knowledge or use of the energy control procedures.
  - 2.1.5. Training records containing individual name and dates of training shall be maintained and updated.
  - 2.1.6. Affected Employees who work in an area where LOTO is utilized shall be instructed about the requirements of the LOTO procedure and the prohibitions relating to attempts to re-energize, and/or restart, equipment, which is locked out/tagged out.

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## 3.0 Procedure

#### **General Requirements**

- 3.1. Authority and Responsibility for LOTO Procedure Implementation
  - 3.1.1. The Plant Manager shall MAINTAIN a list of all personnel authorized to serve as LOTO Authority, and Authorized Employees knowledgeable in specific systems. This list shall be reviewed annually and revised as needed.
  - 3.1.2. The LOTO Authority, or designee(s), has the authority to grant or deny requests for LOTO placement, changes, or release.
  - 3.1.3. Tags, Lockout devices, and padlocks used to implement the LOTO process, may only be placed on and/or removed from equipment isolation devices by authorization of a LOTO Authority unless otherwise specifically stated in this procedure.
  - 3.1.4. LOTO Holders, their designee(s), and individuals performing maintenance or inspections are responsible for ensuring the following:
    - Equipment is isolated from energy sources.
    - Equipment is relieved of potentially hazardous stored or residual energy.
    - The LOTO process was implemented properly before performing maintenance or inspection.
  - 3.1.5. Individuals may perform a support activity under a LOTO Holder of a different craft provided:
    - The work was identified in the original LOTO request.
    - The LOTO Holder is informed of the activity and advised whether additional work from that craft must be performed prior to releasing the LOTO.
    - The individual performing the activity does not perform work beyond the specific scope of the original support activity. (e.g., installing temporary lighting for another craft).

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- 3.2. Equipment Specific Isolation Procedures (ESIP)
  - 3.2.1. The Plant Manager shall ENSURE that work sites develop and utilize ESIPs to ensure safe implementation of the LOTO process.
  - 3.2.2. Each ESIP shall include:
    - Type of equipment or systems, equipment location, a description of the type and magnitude of hazardous energy associated with the equipment.
    - Specific sequentially written steps for stopping, shutting down, isolating, and blocking equipment to control hazardous energy sources.
    - Specific number and placement of Danger tags (<u>Attachment 3</u>), Molded Case Breaker Isolation Verification tags (<u>Attachment 1</u>), Lockout devices, and padlocks required to isolate the equipment from hazardous energy sources.
    - The method(s) used to conduct test(s) for zero energy.
    - Any additional steps which may be required to control hazardous energy when an energy-isolating device is not designed to accept a Lockout device.
  - 3.2.3. A LOTO Authority shall independently REVIEW and APPROVE the ESIPs used at each site.
    - 3.2.3.1. The review and approval process shall include a physical walk down that verifies all required isolation points have been identified and are clearly labeled.
  - 3.2.3.2. Any points not labeled shall be labeled with either temporary or permanent labels prior to issuing the LOTO for placement.
  - 3.2.4. ESIP approvals are valid for one year.
  - 3.2.5. If an ESIP has not been either used or reviewed within one year of the current date, the LOTO shall be developed from the ESIP, and then the ESIP must be reviewed, and approved by a LOTO Authority before use.
  - 3.2.6. Whenever equipment is replaced, renovated, modified, or is installed, the ESIP for that equipment shall be updated or created.

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#### 3.3. Compliance Requirements

- 3.3.1. A Danger Tag, Molded Case Breaker Isolation Verification Tag, Testing In Progress Tag, Grounding Tag, or padlock shall NOT be bypassed, ignored, defeated, or otherwise used for any other purposes.
- 3.3.2. Failure to comply with the LOTO procedure shall be grounds for disciplinary action. Based on the severity of the violation, this could include discipline up to and including termination.
- 3.3.3. Padlocks shall be attached to the equipment's Energy Isolating Device(s) (EID(s)) when equipment is capable of accepting a Lockout device.
- 3.3.4. When equipment is replaced, renovated, or modified, or new equipment is installed, the equipment shall be capable of accepting a Lockout device.
- 3.3.5. Document formats (electronic and hard-copy) shall be consistent throughout NRG Energy for the LOTO Request Form, LOTO Holder Walk Down Form, Main LOTO Form, Re-Verification Form, Test Permit Form, Danger Tags, and Grounding Tags (see <a href="Supporting Documents">Supporting Documents</a> for examples).

#### 3.4. Personal Protective Grounding

- 3.4.1. Grounding Tags are to be included with LOTO.
- 3.4.2. When placing grounds, the site shall follow the NRG Personal Protective Grounding procedure (refer to <u>Personal Protective Grounding NRG-0911</u>).
  - 3.4.2.1. All Isolation points for the equipment to be grounded shall be independently verified in accordance with the steps required for Independent Verification in section 3.11.
  - 3.4.2.2. Grounds shall be locked with a separate set of Isolation locks to ensure the key for the isolation points is secured in the main lock box during the installation of grounds.
- 3.4.3. Grounding isolation point information shall be included on the Main LOTO Form to ensure that grounds are not left in place when clearing a LOTO.
- 3.4.4. Grounds will be tagged with a Danger Tag that clearly identifies it as a ground isolation point (<u>Attachment 3</u>).
- 3.4.5. Grounds should be the last equipment tagged and the first equipment untagged.

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#### 3.5. Vents and Drains

NOTE: In all situations where the LOTO Authority has the option to include vents or drains in the LOTO, the LOTO Authority must consider the potential for hazardous energy to exist or to accumulate due to temperature/pressure differentials, chemical reactions or other condition that could occur that could expose an employee to hazardous energy sources during the performance of work on equipment under a LOTO.

- 3.5.1. Inclusion or exclusion of vents and drains in the LOTO shall be determined by the LOTO Authority.
- 3.5.2. Vents and Drains shall be required to be part of a LOTO when any of the following conditions exists:
  - The failure to open or close a vent or drain could cause, or create an exposure to hazardous energy to any person performing work under the LOTO; or
  - The closing of such vents/drains could allow or cause the accumulation of hazardous energy; or
  - The opening of the vents/drains creates a hazard (during work or return to service).
- 3.5.3. When accumulation of energy can occur due to isolation valve leakage, the vent and/or drain isolation valve(s) must be considered for inclusion as part of the LOTO boundary.
- 3.6. Three Phase Molded Case Breaker Isolation Verification

NOTE: Because a visible break is not feasible on molded case breakers, these breakers require verification that each load-side phase has been effectively de-energized.

- 3.6.1. Acceptable methods of verifying the load side is de-energized are:
  - Permanently mounted testing device capable of detecting load side electrical potential of the molded case breaker.
  - A Qualified Electrical Worker (<u>QEW</u>) performing an isolation verification test (live-dead-live).
- 3.6.2. Upon completing isolation verification, attach a Molded Case Breaker Isolation Verification Tag (MCB Tag) (Attachment 1) in such a manner that it cannot be removed without compromising the breaker isolation as follows:
  - For breakers verified by a <u>QEW</u>, the QEW shall PLACE the MCB Tag
    at the molded case breaker isolation point where the associated LOTO
    Danger Tag is placed.
  - If a permanently mounted test device is used, the individual assigned to place the LOTO shall PLACE the MCB Tag.

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- 3.6.3. The Plant Manager shall ENSURE that three-phase molded case breakers are identified as requiring isolation verification by means of labeling that meets the following requirements:
  - The label shall identify the breaker as a Molded Case Breaker requiring additional isolation verification.
  - The label shall be placed on each breaker in a manner that the label is visible when the breaker is isolated.

#### **Main LOTO Process**

- 3.7. LOTO Request
  - 3.7.1. The person requesting the LOTO shall SUBMIT a LOTO Request Form (Attachment 2) to the LOTO Authority including the following information:
    - Requestor name
    - Date of Request
    - Equipment name to be under LOTO
    - Date and time LOTO requested to be active
    - Detailed scope of work to be performed
    - Work order number
    - Any special conditions that may apply to the LOTO or the work scope such as Personal Protective Grounds.
  - 3.7.2. The person requesting the LOTO should SUBMIT the LOTO request at least one day in advance of the work start unless emergency situations arise.
  - 3.7.3. The LOTO Authority may APPROVE a LOTO based on a verbal request in an emergency situation. The LOTO Authority shall ENSURE that documentation is completed in a timely manner.
- 3.8. LOTO Initiation

Life Critical Step

- 3.8.1. The LOTO Authority shall:
  - 3.8.1.1. APPROVE or DENY the written LOTO request
    - Review and understand the LOTO request to ensure the understanding of the scope of work to be performed under the requested LOTO before authorization or denial of the request.
    - REJECT any LOTO request received without a detailed scope of work specified.

NOTE: The LOTO Authority is responsible to ensure the scope of work provides sufficient detail to ensure the LOTO Authority has a complete understanding of the work that is required, the isolation points required and an understanding of the potential hazards of work to be performed.

• Complete the LOTO Request Form (Attachment 2).

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Life Critical Step

3.8.1.2. DEVELOP the LOTO

- Develop, utilize, or modify an ESIP for the LOTO that is adequate for the protection of all personnel performing work described in the LOTO request.
- If a tagging computer is not available, use a Manual LOTO log.

#### 3.9. ESIP Verification

Life Critical Step 3.9.1. An Independent LOTO Authority shall:

3.9.1.1.

Independently VERIFY the ESIP for the LOTO is adequate for the protection of all personnel performing work described in the LOTO request.

Life Critical Step

3.9.1.2.

If the ESIP is newly developed, PERFORM a walk down of the ESIP, ensuring each EID is clearly and correctly labeled. The walk down requirement applies to any existing ESIP that has been modified since its last approval.

3.10. Isolation Padlock and Danger Tag Placement

#### 3.10.1. The LOTO Authority or designee shall:

3.10.1.1. PRINT the Danger Tags (<u>Attachment 3</u>) and the Main LOTO Form (<u>Attachment 6</u>).

Life Critical Step 3.10.1.2. ATTACH the LOTO Request Form to the Main LOTO Form (Attachment 2).

3.10.1.3. **IDENTIFY and DOCUMENT all hazards associated with performing the LOTO.** 

3.10.1.4. ENSURE that the Authorized Employees who are involved with the Isolation Padlock and Danger Tag placement (Tag Hangers), and the individuals performing independent verification are capable of performing the steps safely and that they are listed on the Plant Manager approved list of "Authorized Employees" knowledgeable in specific systems (refer to 3.1.1).

3.10.1.5. ASSIGN an Authorized Employee knowledgeable in the system (Tag Hanger) to position the EID(s) as listed on the ESIP in the required position and in the proper sequence, and attach Isolation Padlocks and Danger Tags.

3.10.1.6. CONDUCT a LOTO Job Safety Briefing (<u>Attachment 4</u>) with the Tag Hanger and the individuals performing verification to include:

Life Critical Step

- The steps involved in performing the LOTO.
- The hazards for each step, the mitigating actions (including required PPE) taken to eliminate or control the hazards.

3.10.1.7. ENSURE that all individuals participating sign/initial LOTO Job Safety Briefing form (Attachment 4).

Life Critical Step

3.10.2. The Tag Hanger shall:

3.10.2.1. Refer to the Main LOTO Form and PERFORM the following for each EID in the sequence listed:

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Life Critical			
Step			

#### 3.10.2.1.1. PLACE the EID in the required position:

3.10.2.1.1.1. If the Tag Hanger identifies one or more EIDs that

are not labeled, the Tag Hanger shall immediately STOP execution of the hanging of the LOTO and contact the LOTO Authority.

3.10.2.1.1.2. The LOTO Authority and the Tag Hanger shall

CONFIRM the EID is the correct EID before completing the hanging of the LOTO. The EID will be immediately labeled with either a temporary or

permanent label.

Life Critical Step

3.10.2.1.2. ATTACH LOTO device, correct component Danger tag and Isolation Padlock to the EID.

INITIAL each Danger Tag and each EID on the Main LOTO 3.10.2.1.3.

Form. IF initialing the Danger Tag presents a hazard to the Tag Hanger then the Danger Tag may be initialed just prior to

being hung (Attachment 3).

#### NOTE: Confirmation may involve testing or visual inspection of equipment to confirm isolation.

3.10.2.2. When all EIDs for the LOTO have been positioned, CONFIRM hazardous energy sources are relieved, disconnected, restrained, or otherwise rendered safe.

3.10.2.3. Upon completion of placement of isolation padlock and Danger Tags, PLACE the key(s) to the isolation padlock(s) in the Main lockbox and NOTIFY the LOTO Authority.

3.10.2.4. NOTIFY the LOTO Authority of any component that cannot accept a LOTO device and isolation padlock.

#### NOTE: The use of Tag Only is considered the exception rather than the normal practice and those items shall be noted on the Main LOTO Form as Tag Only.

- 3.10.3. The LOTO Authority shall CONFIRM whether or not the component can accept a LOTO device and isolation padlock.
  - Additional means to be considered as part of the demonstration of full 3.10.3.1. individual protection shall include the implementation of additional safety measures such as:
    - Removal of an isolating circuit element
    - Blocking of a controlling switch
    - Opening of an extra disconnecting device
    - Removal of a valve handle to reduce the likelihood of inadvertent repositioning

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- 3.10.4. If there is no way to attach a LOTO device and isolation padlock, the LOTO Authority shall DIRECT the Tag Hanger to:
  - 3.10.4.1. ATTACH the Danger Tag to the component.
  - 3.10.4.2. INITIAL each Danger Tag and each EID on the Main LOTO Form.
  - 3.10.4.3. NOTIFY the LOTO Authority when the equipment has been isolated from hazardous energy sources.

NOTE: The control padlock (yellow) and control tag maintains the integrity of the Main lockbox and the EID keys within until the LOTO is removed, modified or released for test.

- 3.10.5. The LOTO Authority or designee shall ATTACH a Control padlock and a Control tag to the Main Lockbox.
- 3.11. Independent Verification

NOTE: Each EID shall be independently verified by an authorized employee who is not the person who placed the LOTO and has knowledge of the system being isolated. The Independent Verification is a physical check to verify that equipment is properly isolated from hazardous energy sources. The person performing this function is responsible to ensure that the tag hanger performed all the steps of the LOTO in accordance with the ESIP, EIDs are in the proper locked and tagged position, and the information on the Danger Tag(s) is properly completed and correct.

A Danger tag shall never be bypassed, ignored, or otherwise defeated when verifying that equipment has been isolated.

Life Critical Step

3.11.1. An Authorized employee knowledgeable in the system being isolated shall:

- 3.11.1.1. **VERIFY Each EID is in the correct position.**
- 3.11.1.2. VERIFY that Lockout device, Danger tag, Molded Case Breaker Isolation Verification Tag, Grounding Tag, and isolation padlock are attached to the individual EID.

Life Critical Step

- 3.11.1.3. VERIFY that Danger Tag information correctly matches the EID.
- 3.11.1.4. INITIAL each Danger Tag and each EID on the Main LOTO Form. <u>IF</u> initialing the Danger Tag presents a hazard to the Independent Verifier then the Danger Tag need not be initialed, <u>but</u> it must be verified.
- 3.11.1.5. ENSURE the correct keys for the isolation lockset(s) are contained within the Main Lockbox(es) identified on the Main LOTO Form.
- 3.11.1.6. SECURE the Main Lockbox(es) with the Main Lockbox Seal(s) at the direction of the LOTO Authority and RECORD on the Main LOTO Form.

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NOTE: Independent verification may not be practical for unmanned sites or sites staffed with two or less employees and where it is not feasible to complete a physical independent verification.

This does not exclude sites from having their isolation points independently verified by an Authorized Employee, it merely offers an alternate means of verification.

- 3.11.2. When Independent Verification is not practical:
  - 3.11.2.1. The Authorized Employee knowledgeable in the system shall ENSURE verification by use of a security camera, an emailed photo, a step by step walkthrough over the phone, or other similar means to ensure that the equipment is properly isolated.
  - 3.11.2.2. The Plant Manager shall APPROVE the list of those specific sites where this process may be utilized. This list shall NOT include sites in close proximity to other sites.
- 3.12. Test for Zero Energy

## Life Critical Step

- 3.12.1. An Authorized employee(s) knowledgeable in the system shall:
  - 3.12.1.1. PERFORM a zero energy check of components identified on the Main LOTO Form.
  - 3.12.1.2. VERIFY that the LOTO Control Tag is in place on the Main Lockbox identified on the Main LOTO Form and the Main Lockbox seal number matches the one listed on the Main LOTO Form.
  - 3.12.1.3. VERIFY that electrical EID(s) are in the correct position (retracted, disconnected, visible air gap, grounds attached, Molded Case Breaker Isolation Verification Tag in place, attempted test start or other suitable method) for verification prior to conducting any required electrical potential test required on the Main LOTO Form.
  - 3.12.1.4. VERIFY equipment is isolated from hazardous energy sources and relieved of potentially hazardous stored or residual energy.
  - 3.12.1.5. Visually INSPECT equipment or instrumentation to CONFIRM Isolation (e.g., vent/drains zero energy, hydraulic pressures released, pneumatics vented etc.).
  - 3.12.1.6. NOTIFY THE LOTO Authority if a discrepancy is discovered during the zero energy test; or if the test does not confirm zero energy state.
- 3.12.2. The LOTO Authority shall RESOLVE any discrepancy before proceeding.
  - 3.12.2.1. If the resolution requires Main Lockbox entry, INSTALL a new Main Lockbox seal and RECORD on the Main LOTO Form.
  - 3.12.2.2. ENSURE any equipment given a start/actuation demand has also been given a subsequent stop demand.

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#### 3.13. Re-Verification

- 3.13.1. The LOTO Authority shall:
  - 3.13.1.1. STOP WORK for any condition that requires re-verification of the LOTO, such as missing or a broken Main Lockbox Seal, LOTO modification, or temporary release for test, and DIRECT all workers and LOTO Holders to return their LOTO Holder Walk Down Forms (Attachment 5) to the LOTO Authority.
  - 3.13.1.2. PRINT a Main LOTO Re-Verification Form (<u>Attachment 7</u>) and PERFORM LOTO Re-Verification per sections 3.11 through 3.12 before proceeding to LOTO Activation (section 3.14).

#### 3.14. LOTO Activation

- 3.14.1. The LOTO Authority or designee shall:
  - 3.14.1.1. REVIEW the Main LOTO Form for procedural compliance and accuracy.
  - 3.14.1.2. ENSURE all documentation supporting procedural compliance is attached to the Main LOTO Form, and then CHANGE the LOTO status to Active in the LOTO software.
  - 3.14.1.3. PRINT or make available a LOTO Holder Walk Down Form (Attachment 5) for all individual LOTO Holders listing equipment name, LOTO Holder name, reason for LOTO, ESIP components and locked position, Main lock box number, lockset number, and Main Lock box Seal number for all individual LOTO Holders. In the case of MSH LOTO, one LOTO Holder Walk Down Form will be issued to the group of MSH LOTO Holders.

#### 3.15. LOTO Validation

NOTE: Communication must take place between the LOTO Authority and the LOTO Holder prior to any work being started to ensure that no one goes to work on a piece of equipment that is not properly isolated.

3.15.1. The LOTO Holder shall REVIEW the description of work and applicable ESIP and EIDs selected for the scope of work to be performed.

Life Critical Step

- 3.15.2. The LOTO Holder or designee shall walk down the LOTO to:
  - 3.15.2.1. VERIFY the equipment is isolated from hazardous energy sources and relieved of potentially hazardous stored or residual energy.
  - 3.15.2.2. VERIFY the positioning of the EIDs, Danger Tags and Isolation Padlocks in accordance with the LOTO Holder Walk Down Form (Attachment 5).
  - 3.15.2.3. VERIFY that Lockout device, Danger tag, Molded Case Breaker Isolation Verification Tag, Grounding Tag, and isolation padlock are attached to each EID.
  - 3.15.2.4. VERIFY Danger Tag information correctly matches the EID.

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- 3.15.2.5. VERIFY the EID is in the position stated on the LOTO Holder Walk Down Form (Attachment 5).
- 3.15.2.6. VERIFY that an electrical EID is in the correct position retracted, disconnected, visible air gap, Molded Case Breaker Isolation Verification Tag in place or other suitable method for verification.
- 3.15.2.7. INITIAL the LOTO Holder Walk Down Form for each EID after this verification.
- 3.15.3. The LOTO Holder shall RESOLVE any discrepancies found in placement or number of Isolation Padlocks required with the LOTO Authority before proceeding further.
- 3.15.4. The LOTO Holder shall ENSURE the following items are attached to the Main Lockbox:
  - Control padlock
  - Control tag
  - Main Lockbox Seal
- 3.15.5. The LOTO Holder shall REPORT any discrepancies noted between the Main Lockbox Seal number recorded on the Main LOTO Form to the LOTO Authority.
- 3.15.6. The LOTO Authority shall RESOLVE any discrepancies before proceeding.
- 3.15.7. The LOTO Holder shall perform the following to formally accept the LOTO:
  - 3.15.7.1. REPORT ON (accept) the LOTO in the electronic computer software or on the Main LOTO Form.
  - 3.15.7.2. ATTACH a LOTO Holder padlock (blue) and LOTO Holder Tag to the Main Lockbox.
  - 3.15.7.3. RETAIN the LOTO Holder Walk Down Form, until the release of the LOTO for modification, test, or work completion.

# Note: LOTO Holder locks can be left on lockboxes after the LOTO Holder leaves the site.

- 3.15.8. If the LOTO Holder Padlock is removed at any point and either of the following conditions is present, then the LOTO Holder shall NOTIFY the LOTO Authority to RE-VERIFY all isolation points as in section 3.12:
  - No Main Lockbox Seal is attached to the Main Lockbox or is broken.
  - The Main Lockbox Seal number is different than the Main Lockbox Seal number recorded on the LOTO Holder Walk Down Form (<u>Attachment 5</u>).
- 3.15.9. The LOTO Holder shall COMMUNICATE changes to their work group.
- 3.15.10. When a shift change takes place, the oncoming LOTO Holder shall DETERMINE any changes made to the LOTO and any impact those changes may have on the continuing work activities.

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#### 3.16. Remote Lockbox Use

- 3.16.1. When a Remote Lockbox is used, the LOTO Holder shall:
  - 3.16.1.1. ATTACH a LOTO Holder's Padlock and a LOTO Holder's Tag to the Main Lockbox. The LOTO Holder's Tag shall identify the Main Lockbox and, if applicable, the Remote Lockbox number(s).
  - 3.16.1.2. PLACE the key to the LOTO Holder's Padlock, which is attached to the Main Lockbox, into the Remote Lockbox.
  - 3.16.1.3. ATTACH a LOTO Holder's Tag and LOTO Holder's Padlock to the Remote Lockbox.
- 3.16.2. All individuals shall ATTACH their Personal Padlock to the correct remote lockbox prior to performing work.

### 3.17. Performing Work

NOTE: All personnel performing work have the right to verify the LOTO EID(s).

It is the responsibility of every individual and every contractor to ensure the Padlock is in place on the appropriate lockbox prior to starting work.

- 3.17.1. Personnel performing maintenance or inspection on equipment shall:
  - 3.17.1.1. COMMUNICATE with the LOTO Holder each shift to discuss any changes that may have taken place.
  - 3.17.1.2. ENSURE the equipment is isolated from hazardous energy sources and relieved of potentially hazardous stored or residual energy by communicating with the LOTO Holder prior to initiating work.
  - 3.17.1.3. ATTACH a Personal Padlock to the Main Lockbox or Remote Lockbox once they have verified the LOTO Holder's Padlock and LOTO Holder's Tag is in place.
  - 3.17.1.4. MONITOR for the accumulation of hazardous energy until the maintenance or inspection is completed.
- 3.17.2. Unless otherwise directed by the LOTO Authority, personnel performing work under LOTO shall REMOVE their Personal Padlocks prior to leaving at the end of their shift.

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#### 3.18. Job Completion and LOTO Release

- Personnel performing work shall REMOVE their Personal Padlock(s) at the 3.18.1. completion of the job assignment or as required by the LOTO Holder or LOTO Authority.
- 3.18.2. Once all workers have removed their Personal Padlocks from the lockbox(s), the LOTO Holder shall ENSURE the work is complete and the equipment is clean and clear of interferences to operation.
- 3.18.3. The LOTO Holder shall:
  - 3.18.3.1 REMOVE the LOTO Holder's Padlock and LOTO Holder's Tag.
  - 3.18.3.2. REPORT OFF the LOTO in the computer software or on the manual
  - 3.18.3.3. NOTIFY the LOTO Authority that the LOTO is released.
  - 3.18.3.4. RETURN the LOTO Holder Walk Down Form to the LOTO Authority.
  - 3.18.3.5. NOTIFY the LOTO Authority on the as left condition of the equipment for which the LOTO was placed.

#### 3.19. LOTO Removal and Equipment Restoration

3.19.1. The LOTO Authority or designee shall:

**Life Critical** Step

ENSURE that each LOTO Holder has signed off or reported off and removed locks when their specific portion of the work is complete, their affected personnel are clear, and the area is free of hazards.

3.19.1.2.

3.19.1.1.

REVIEW the LOTO documentation and ENSURE all forms subject to retention are physically attached to the original Main LOTO Form.

**Life Critical** Step

3.19.1.3. ENSURE that all LOTO Holder requirements in 3.18 are complete.

- Assign an employee to inspect the equipment to confirm the equipment components are operationally intact.
- Print a current Main LOTO Form to capture the active component list after all modifications during the course of the LOTO.
- Release the LOTO in the tagging computer or manual log.

3.19.1.4. ENSURE that the Authorized Employees who are involved with the lock and tag removal (Tag Remover), and the individuals performing verification are capable of performing the steps safely and that they are listed on the Plant Manager approved list of "Authorized" Employees" knowledgeable in specific systems (refer to 3.1.1).

**Life Critical** Step

3.19.1.5.

IDENTIFY and DOCUMENT all hazards associated with removing the LOTO.

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Life Critical Step

3.19.1.6.

CONDUCT a LOTO Job Safety Briefing with the Authorized individuals who are involved with the lock and tag removal (Tag Remover), and the individuals performing verification to include:

- The steps involved in removing the LOTO.
- The hazards for each step, the mitigating actions (including required Personal Protective Equipment) taken to eliminate or control the hazards.

Life Critical Step

3.19.1.7.

3.19.3.

ENSURE that all individuals participating sign/initial LOTO Job Safety Briefing Form (Attachment 4).

Life Critical Step

- 3.19.2. The LOTO Authority shall ASSIGN a Tag Remover to:
  - 3.19.2.1. REMOVE the LOTO devices, Danger tags and isolation padlocks from the EIDs.
  - 3.19.2.2. PLACE the EIDs in the position as briefed by the LOTO Authority.
  - 3.19.2.3. INITIAL each item as completed on the Main LOTO Form.

Life Critical Step

The LOTO Authority shall ASSIGN an Authorized Employee knowledgeable in the system who DID NOT remove the Danger Tags and Isolation Padlocks of the LOTO to:

- Verify that all Danger Tags and Isolation Padlocks have been removed.
- Verify equipment restoration is complete and the equipment EIDs are in the position as briefed by the LOTO Authority.
- Initial each item as completed on the Main LOTO Form.
- 3.19.4. The LOTO Authority or designee shall:
  - 3.19.4.1. CLOSE OUT the LOTO in the tagging computer or manual log.
  - 3.19.4.2. RETAIN all documents as required in section 5.0.

#### **Variations to LOTO Process**

- 3.20. Adding or Modifying Work Scope to an Active LOTO
  - 3.20.1. The LOTO Holder or their designee shall CONTACT the LOTO Authority and provide a new LOTO Request Form (Attachment 2).
  - 3.20.2. The LOTO Authority will REVIEW the request and CONFIRM the existing LOTO provides the necessary protection. If the existing LOTO provides the necessary protection the approval of a 2<sup>nd</sup> LOTO Authority is required.
  - 3.20.3. If an existing LOTO needs to be modified, FOLLOW the steps in section 3.21 or 3.22 or INITIATE a new LOTO in accordance with section 3.8.

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#### 3.21. Adding EID(s) to an Active LOTO

NOTE: This section is to be used when the current LOTO provides proper isolation for the work initially requested. If a scope change is needed to expand the current LOTO, and EIDs need to be added to allow the work, those EID(s) can be added without stopping work currently covered by the LOTO using the guidance in this section.

If the existing LOTO has failed to properly isolate the equipment, work must be stopped and additional EID(s) added or a new LOTO must be initiated, see section 3.8.

- 3.21.1. If the current LOTO provides proper isolation for the work then additional scope and EIDs can be added without stopping work currently covered by the LOTO.
- 3.21.2. The LOTO Holder shall PROVIDE a LOTO request for the additional work scope to the LOTO Authority.

Life Critical Step

3.21.3. The LOTO Authority shall REVIEW the LOTO request and IDENTIFY the needed isolation devices to be added to the existing LOTO to provide isolation required by the additional work scope.

Life Critical Step 3.21.4. A 2<sup>nd</sup> LOTO Authority or designee shall REVIEW the LOTO request and CONFIRM the added isolation devices to the existing LOTO are proper to provide isolation required by the additional work scope identified on the LOTO request.

3.21.5. The LOTO Authority shall PRINT the Added Isolation Devices Form (Attachment 8) and Danger Tag(s) and SELECT the appropriate lock set required for the modification.

Life Critical Step

3.21.6.

The LOTO Authority or designee shall ENSURE the steps in section 3.10 through 3.17, EXCEPT steps 3.10.2.3 and 3.11.1.5, are performed to complete adding an EID(s) to an active LOTO.

NOTE: Anytime the Main Lockbox Seal is broken, the entire LOTO will require reverification. If an added EID key can be inserted into the Main Lockbox without breaking the Main Lockbox Seal, then only the added EID points will require re-verification.

- 3.21.7. The LOTO Authority or designee shall:
  - 3.21.7.1. PREPARE and PRINT the modified LOTO Holder Walk Down Form (<u>Attachment 5</u>).
  - 3.21.7.2. MEET the LOTO Holder(s) reported on the LOTO at the Main lock box assigned to the LOTO which has had isolation devices added.
  - 3.21.7.3. PRESENT the added isolation padlock key(s) to the LOTO Holder(s) for inspection.
- 3.21.8. The LOTO Holder(s) shall CONFIRM the correct key number(s), and PLACE the key(s) into the Main Lockbox via the key drop slot.

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- 3.21.9. The LOTO Authority or designee will PROVIDE the modified LOTO Holder Walk Down Form to the LOTO Holder(s).
- 3.21.10. The LOTO Holders shall PERFORM a walk down in accordance with section 3.15.1 through 3.15.3.
- 3.22. Removing EID(s) from an Active LOTO

NOTE: This section is intended to be used when the nature of the change to the work requires alterations that impact the adequate isolation for currently identified work scope. Thus, no LOTO Holders can be reported on and no work can be performed to the LOTO during changes made using this section.

- 3.22.1. The individual who identifies the need for a change in isolation points shall NOTIFY the LOTO Holder.
- 3.22.2. If the LOTO Holder agrees with the changes recommended, the LOTO Holder shall SUBMIT a LOTO Request Form (<u>Attachment 2</u>) explaining the need for modification to the LOTO Authority.
- 3.22.3. If the LOTO Authority agrees that changes are required, the LOTO Authority shall NOTIFY all additional LOTO Holders reported on the LOTO of the pending request for modification.

Life Critical Step

- 3.22.4. If all LOTO Holders are in agreement that the modification is acceptable, the LOTO Authority shall APPROVE the LOTO Request.
- 3.22.5. The LOTO Holder(s) shall PERFORM the following:
  - 3.22.5.1. STOP all work protected by the LOTO.
  - 3.22.5.2. DIRECT all personnel to unlock from the LOTO.
  - 3.22.5.3. REPORT OFF of the LOTO.
  - 3.22.5.4. REMOVE the LOTO Holder Padlocks and LOTO Holder Tags.
  - 3.22.5.5. RETURN the LOTO Holder Walk Down Forms to the LOTO Authority or designee.

Life Critical Step

3.22.6.

3.22.8.2.

The LOTO Authority shall UPDATE the ESIP to reflect the changes necessary and IDENTIFY the affected isolation points on the Removed Isolation Devices Form (Attachment 9).

Life Critical Step

- 3.22.7. The changes shall be reviewed by second LOTO Authority.
- 3.22.8. The LOTO Authority or designee shall:

Life Critical Step

- 3.22.8.1. PRINT the Removed Isolation Devices Form as required.
  - CONDUCT a LOTO Job Safety Briefing with the assigned Authorized employees (Tag Removers) that will make the changes to the LOTO including a review of which EID Isolation Padlocks, Danger Tags will be removed and how the EID is to be positioned after removal.
- 3.22.8.3. ENSURE all individuals participating sign/initial LOTO Job Safety Briefing Form (Attachment 4).

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# Life Critical Step

3.22.9. At the request of the LOTO Authority or designee, the Authorized Employee assigned to execute the modification (Tag Remover) shall:

- 3.22.9.1. OPEN the Main Lockbox as needed to gain access to the keys for the Isolation Padlocks to support the removal of isolation devices.
- 3.22.9.2. REMOVE Danger Tags and Isolation Padlocks and position the EID(s) as briefed by the LOTO Authority.
- 3.22.9.3. **ENSURE** the EID is placed in the position as required on the applicable Removed Isolation Devices Form (Attachment 9).
- 3.22.9.4. ACKNOWLEDGE each component on the applicable Removed Isolation Devices Form.
- 3.22.9.5. RETURN Isolation padlock keys to the Lockbox.
- 3.22.10. The LOTO Authority or designee shall DIRECT an authorized employee knowledgeable in the system who did not modify the LOTO to independently verify that Danger Tags and Isolation Padlocks are in place.
- 3.22.11. The LOTO Authority shall ensure all steps in sections 3.11 through 3.17 are performed to complete changing the active LOTO that includes removal of at least one EID.
- 3.22.12. The LOTO Authority or designee shall ATTACH a Control Padlock and a Control tag to the Main Lockbox.
- 3.22.13. The LOTO Holder shall REPORT any discrepancies noted between the Main Lockbox Seal number recorded on the Main LOTO Form to the LOTO Authority.
- The LOTO Authority shall RESOLVE any discrepancies before proceeding.

NOTE: Communication must take place between the LOTO Authority and the LOTO Holder prior to any work being started to ensure that no one goes to work on a piece of equipment that is not properly isolated.

- 3.22.15. The LOTO Holder shall COMMUNICATE changes to their work group.
- 3.22.16. When a shift change takes place, the oncoming LOTO Holder shall DETERMINE any changes made to the LOTO and any impact those changes may have on the continuing work activities.
- 3.22.17. If the Main Lockbox Seal was broken, the LOTO Holder shall PEFORM a walk-down of the LOTO.

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#### 3.23. Conditional LOTO

NOTE: The Conditional LOTO is intended as the exception rather than a standard practice. This exception applies exclusively to station defined equipment that while isolated, must be operated during the repair process such as circulating water travelling screens and boiler air pre-heater baskets.

Conditional EIDs are the EIDs in control of the LOTO Holder and will be manipulated during the course of the work. Remaining EIDs are non-conditional EIDs.

Conditional LOTO's must include a written step by step procedure, a specific job briefing and a Remote Lockbox containing the conditional EID(s) lockset keys. This Remote Lockbox will be placed in close proximity of the equipment to be operated. Physical barriers will be provided at all applicable access points to potential moving parts when possible and labeled to warn individuals that they must be locked on to the conditional EID Remote Lockbox before crossing.

The non-conditional EID(s) will be secured conventionally as a part of the LOTO in the Main Lockbox.

Conditional LOTOs that will be worked continuously will require a Multiple Shift Holder LOTO. If this is the case, Multiple Shift Holder LOTO Method #1 must be used.

- 3.23.1. The LOTO Authority shall follow the normal LOTO process in addition to the following requirements:
  - 3.23.1.1. The LOTO Authority shall REQUEST that the LOTO Holder develop or review a Job Safety Analysis (JSA) as per <u>Job Safety Analysis</u> <u>NRG-0903</u>, on the risks in positioning the equipment, a Conditional LOTO ESIP, and a specific step-by-step procedure for protection of personnel during equipment positioning that identifies the following:
    - 3.23.1.1.1. The specific EID(s) that will be operated during movements, and sequence of events to protect workers under the Conditional LOTO.
    - 3.23.1.1.2. How protection is provided to a worker observing the movement inside a space requiring LOTO, but not at risk from the movement of the equipment.
    - 3.23.1.1.3. The requirement to conduct a LOTO Job Safety Briefing at the beginning of each shift.
    - 3.23.1.1.4. Any additional steps required to ensure individual protection.
  - 3.23.1.2. LOTO Authority shall REVIEW the JSA on the risks in positioning the equipment, the Conditional LOTO ESIP, and the specific step-by-step procedure for protection of personnel during equipment positioning.

Life Critical Step 3.23.1.3.

A LOTO Authority shall CONDUCT a LOTO Job Safety Briefing with all personnel involved installing and verifying the Conditional LOTO pointing out the need for the Conditional EIDs to be secured by an independent isolation lockset.

Life Critical Step 3.23.1.4.

An Authorized Employee knowledgeable in the system (Tag Hanger) shall INSTALL the LOTO as in the normal process with the following exceptions:

- 3.23.1.4.1. PLACE the non-Conditional EID Isolation Padlock keys in the Main Lockbox.
- 3.23.1.4.2. DELIVER the Conditional lockset key(s) to the LOTO Authority.
- 3.23.1.5. After Independent Verification and Test for Zero Energy steps are performed, the LOTO Authority in addition to the normal process shall:
  - 3.23.1.5.1. ASSIGN a Remote Lockbox for the Conditional EID lockset key(s) and PLACE these keys in the assigned Remote Lockbox.

Life Critical Step

3.23.1.5.2. CONDUCT a LOTO Job Safety Briefing with the LOTO Holder, which shall include:

- The specific EID(s) that will be operated during movements, and sequence of events to protect workers under the Conditional LOTO.
- How protection is provided to a worker observing the movement inside a space requiring LOTO, but not at risk from the movement of the equipment.
- Any additional steps required to ensure individual protection.
- 3.23.1.6. The LOTO Holder for the Conditional LOTO shall SECURE the Conditional EID Padlock key in the Conditional EID Remote Lockbox; SECURE the remote lockbox with LOTO Holder Padlock and LOTO Holder Tag and PLACE at job site.
- 3.23.2. Before performing initial work, The LOTO Holder shall:
  - 3.23.2.1. REVIEW the Conditional LOTO Procedure/JSA with all personnel involved making sure everyone thoroughly understands the limits, special conditions and process of the Conditional LOTO Procedure/JSA at the LOTO Job Safety Briefing.
  - 3.23.2.2. ESTABLISH a Conditional LOTO Shift Log (<u>Attachment 10</u>) and the sign on/off log for the conditional LOTO.
  - 3.23.2.3. CONDUCT a LOTO Job Safety Briefing at the beginning of each shift.
  - 3.23.2.4. ENSURE that all workers lock onto both the Main Lockbox (non-conditional) and the Remote Lockbox remote lockbox (conditional) for all work prior to the establishment of a barrier and signage.

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3.23.2.5. After establishment of the physical barrier, POSITION the equipment as follows:

 DIRECT all workers inside the barrier to remove themselves from the area identified by the barrier and unlock from the Conditional Remote Lockbox.

NOTE: The LOTO Holder is responsible to ensure that all personnel remain clear of the equipment being worked on whenever the Energy Isolating Device is to be operated.

- The LOTO Holder shall REPORT OFF on the Conditional LOTO Shift Log, REMOVE his/her lock and LOTO Holder Tag from the Remote Lockbox and REMOVE the Isolation Padlock keys for the EID(s) to be operated.
- 3.23.3. The LOTO holder shall DIRECT the positioning of the EID and movement of the equipment during positioning.
- 3.23.4. After Positioning is complete, the LOTO Holder shall RE-ESTABLISH the Conditional Remote Lockbox as follows:
  - 3.23.4.1. RESTORE the Conditional EID(s) to the locked out condition.
  - 3.23.4.2. ASSIGN an authorized employee knowledgeable in the system to perform an independent verification and acknowledge so on the Conditional LOTO Shift Log.
  - 3.23.4.3. PLACE the keys to the EID(s) in the Remote Lockbox.
  - 3.23.4.4. REPLACE the LOTO Holder's Padlock and Danger Tag to the Remote Lockbox, and REPORT ON to the Conditional LOTO Shift Log.
  - 3.23.4.5. DIRECT each individual to return their Personal Padlock to the Remote Lockbox.

NOTE: This cycle will continue as many times as necessary until the work is complete.

3.23.5. Once the work is complete, the LOTO Holder and LOTO Authority shall follow the normal procedure for work completion and LOTO Release (refer to section 3.18).

#### 3.24. Multiple Shift Holder LOTO

NOTE: A Multiple Shift Holder (MSH) LOTO process is required at times to effectively manage ongoing LOTO activities requiring frequent LOTO reassignments so turnover of ongoing activities and changes to LOTOs can be made more efficiently. There are two methods.

In Method #1 Multiple Shift LOTO Control Padlock (MSH Control Lock) will secure the Remote Lock box for an individual LOTO that will be worked for multiple shifts.

In Method #2 an MSH Control Padlock will secure an MSH Group Lockbox. This MSH Group Lockbox will contain a number of keys to individual MSH Padlocks (individually keyed) controlling the individual LOTO Remote Lockboxes under the control of that MSH Group. An MSH Group Lockbox is preferred when large numbers of MSH LOTOs are controlled by a common group of MSH LOTO Holders to support continuous work, such as during a complex planned outage, commissioning of equipment, or major modification of a unit or site.

- 3.24.1. Multiple Shift Holder LOTO Method #1
  - 3.24.1.1. The person(s) requesting the LOTO shall COMPLETE a LOTO Request Form (Attachment 2) and SUBMIT to the LOTO Authority specifying the need for the Multiple Shift LOTO Holder including the following:
    - Requestor name.
    - · Date of Request.
    - Equipment name to be under LOTO.
    - Date and time LOTO requested to be active.
    - Detailed scope of work to be performed and work order number.
    - Any special conditions that may apply to the LOTO or the work scope.
    - The reason for the use of an MSH LOTO.
    - The names of all MSH Holders expected.

Life Critical Step 3.24.2. The LOTO Authority shall:

3.24.2.1.

REVIEW and understand the LOTO request to ensure the understanding of the work to be performed under the requested LOTO and understand the need for an MSH LOTO before authorization or denial of the request.

Life Critical Step

3.24.2.2. DEVELOP the LOTO; Develop, utilize, or modify an ESIP for the LOTO that is adequate for the protection of all personnel performing work described in the LOTO request.

- 3.24.2.3. ENSURE all steps in section 3.8 through 3.14 are performed to establish the LOTO.
- 3.24.3. One of the MSH LOTO Holders shall REVIEW the description of work, applicable ESIP, and EIDs selected for the scope of work to be performed.

# Life Critical Step

3.24.4.

The MSH LOTO Holder or designee shall VERIFY by walk down the positioning of the EIDs, Danger Tags and Isolation Padlocks on the LOTO ESIP by performing the following:

- 3.24.4.1. VERIFY that Lockout device, Danger tag, Molded Case Breaker Isolation Verification Tag, Grounding Tag, and Isolation Padlock are attached to each EID.
- 3.24.4.2. VERIFY Danger Tag information correctly matches the EID.
- 3.24.4.3. **VERIFY the EID is in the correct position.**
- 3.24.4.4. VERIFY that an electrical EID is in the correct position retracted, disconnected, visible air gap, Molded Case Breaker Isolation Verification Tag in place or other suitable method for verification.

## Life Critical Step

3.24.4.5.

- VERIFY equipment is isolated from hazardous energy sources and relieved of potentially hazardous stored or residual energy.
- 3.24.4.6. INITIAL on the LOTO Holder Walk Down Form for each EID after this verification (<u>Attachment 5</u>).
- 3.25. MSH Acceptance Method #1 without an MSH Control Lockbox
  - 3.25.1. One of the MSH LOTO Holder(s) must perform the following to formally accept the LOTO for all of the Holders on the MSH:
    - 3.25.1.1. REPORT ON (accept) the MSH LOTO in the electronic computer software or on the manual log for the group of Holders.
    - 3.25.1.2. ATTACH an individually keyed Multiple Shift LOTO Holder Padlock (MSH lock (purple) and MSH LOTO Holder Tag to the Main Lockbox.
    - 3.25.1.3. PLACE the key to the individually-keyed Multiple Shift LOTO Holder Padlock (MSH Padlock-(purple) in the Remote Lockbox and SECURE the Remote Lockbox closed with an MSH Control lock (purple with yellow label) with an MSH LOTO Holders' Tag attached. This Remote Lock box will be the location where the work-group and/or contractor group will apply their locks.
    - 3.25.1.4. ENSURE that the MSH Control Lock remains on the Remote Lockbox at all times except when a key is being removed by an authorized MSH LOTO Holder after all work on the Remote Lockbox has been halted, and all Personal Padlocks have been removed from the Remote Lockbox.
    - 3.25.1.5. The onsite MSH LOTO Holder shall ATTACH a Personal Padlock (blue) to the Remote Lockbox whenever the MSH LOTO Holder is onsite and actively functioning as an MSH LOTO Holder.
    - 3.25.1.6. ENSURE that MSH Padlocks and MSH Control locks are left on lockboxes after the MSH LOTO Holder(s) leave the site unless directed by the LOTO Authority.
    - 3.25.1.7. COMMUNICATE changes to his/her work group.
    - 3.25.1.8. When a shift change takes place, the oncoming MSH LOTO Holder shall DETERMINE any changes made to the LOTO and any impact those changes may have on the continuing work activities.

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#### 3.25.2. Performing Work

NOTE: All personnel performing work have the right to verify the LOTO EID(s).

It is the responsibility of every individual and every contractor to ensure their lock is in place on the lockbox at the beginning of the next day or their shift and prior to starting work.

- 3.25.2.1. Personnel performing maintenance or inspection on equipment shall:
  - COMMUNICATE with the MSH LOTO Holder(s) each shift to discuss any changes that may have taken place.
  - ENSURE the equipment is isolated from hazardous energy sources and relieved of potentially hazardous stored or residual energy by communicating with the MSH LOTO(s) Holder prior to initiating work.
  - ATTACH a Personal Padlock to the Remote Lockbox once they have verified the MSH LOTO Holder's Tag and MSH Control Padlock is in place.
  - MONITOR for the accumulation of hazardous energy until the maintenance or inspection is completed.
- 3.25.2.2. Unless otherwise directed by the LOTO Authority, personnel performing work under MSH LOTO and the MSH Holders shall REMOVE their Personal Padlocks from the Remote Lockboxes prior to leaving at the end of their shift.
- 3.25.3. Releasing an MSH LOTO
  - 3.25.3.1. The MSH LOTO Holder releasing the LOTO shall COMPLETE all normal release requirements as in section 3.18 Job Completion and LOTO Release, then:
    - The last MSH LOTO Holder may REMOVE their Personal Padlock from the Remote Lockbox, and REMOVE the MSH Control Padlock from the Remote lockbox.
    - OPEN the Remote Lockbox, REMOVE the key from the Remote Lockbox, and REMOVE the MSH LOTO Holder's Padlock and Danger Tag from the Main Lockbox.
    - Upon final release of the LOTO, NOTIFY the remaining MSH LOTO Holders that the LOTO has been released.

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Step 3.23.3.2.	The LOTO Authority or designee shall:
3.25	.3.2.1. ENSURE that each MSH LOTO Holder has signed off or reported off and removed their Padlocks when their specific portion of the work is complete, their affected personnel are clear, and the area is free of hazards.
	.3.2.2. ATTACH the LOTO documentation and all forms subject to retention to the original Main LOTO Form.
Life Critical Step 3.25	.3.2.3. ENSURE that all LOTO Holder requirements in section 3.18 are complete.
3.25	.3.2.4. ENSURE that all steps in section 3.19 are completed to close out the LOTO.
3.26. Multipl	e Shift Holder (MSH) Method #2 (MSH Control Lock at MSH Group Lockbox)
3.26.1.	The person requesting the LOTO shall COMPLETE a LOTO Request Form ( <u>Attachment 2</u> ) and SUMBIT to the LOTO Authority specifying the need for the Multiple Shift LOTO Holder including the following:
	<ul> <li>Requestor's name.</li> <li>Date of Request.</li> <li>Specific equipment to be under LOTO.</li> <li>Date and time LOTO requested to be active.</li> <li>Detailed scope of work to be performed and work order number.</li> <li>Any special conditions that may apply to the LOTO or the work scope.</li> <li>The reason for the use of an MSH Padlock.</li> <li>The names of all MSH Holders expected.</li> </ul>
Life Critical 3.26.2.	The LOTO Authority shall perform the following:
3.26.2.1.	REVIEW and understand the LOTO request to ensure the understanding of the work to be performed under the requested LOTO and understand the need for an MSH LOTO before authorization or denial of the request.
Step 3.26.2.2.	DEVELOP the LOTO; Develop, utilize, or modify an ESIP for the LOTO that is adequate for the protection of all personnel performing work described in the LOTO request.
3.26.2.3.	ENSURE all steps in section 3.8 through 3.14 are performed to establish the LOTO.
3.26.3.	One of the MSH LOTO Holders shall REVIEW the description of work and applicable ESIP and EIDs selected for the scope of work to be performed.
Life Critical Step 3.26.4.	The MSH LOTO Holder or designee shall VERIFY by walk down the positioning of the EIDs, Danger Tags and Padlocks on the LOTO ESIP by performing the following:
3.26.4.1.	VERIFY that Lockout device, Danger tag, Molded Case Breaker Isolation Verification Tag, Grounding Tag, and isolation padlock are attached to each EID.
3.26.4.2.	VERIFY Danger Tag information correctly matches the EID.
3.26.4.3.	VERIFY the EID is in the correct position.

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3.26.4.4. VERIFY that an electrical EID is in the correct position retracted, disconnected, visible air gap, Molded Case Breaker Isolation Verification Tag in place or other suitable method for verification.

- 3.26.4.5. VERIFY equipment is isolated from hazardous energy sources and relieved of potentially hazardous stored or residual energy.
- 3.26.4.6. INITIAL on the LOTO Holder Walk Down Form for each <u>EID</u> after this verification.
- 3.27. MSH acceptance Method #2 (MSH Control Lock at MSH Group Lockbox)
  - 3.27.1. One of the MSH LOTO Holder(s) shall PERFORM the following to formally accept the LOTO for all of the LOTO Holders on the MSH LOTO:
    - 3.27.1.1. REPORT ON (accept) the MSH LOTO in the electronic computer software or on the manual log.
    - 3.27.1.2. ATTACH an individually keyed MSH Padlock and MSH LOTO Holders' Tag to the Main Lockbox.
    - 3.27.1.3. PLACE the key to the individually-keyed MSH Padlock in the Remote Lockbox and SECURE the Remote Lockbox closed with a second MSH Padlock with an MSH LOTO Holder's Tag attached. This Remote Lockbox will be the location where the work-group and/or contractor group will apply their Padlocks.
    - 3.27.1.4. SECURE the key to the individual MSH Padlock securing the MSH LOTO Remote lockbox in the MSH Group Lockbox by:
      - 3.27.1.4.1. If an MSH Group Lockbox has NOT been established for the group, PLACE the MSH LOTO Padlock key in a Group Lockbox.
      - 3.27.1.4.2. If an MSH Group Lockbox is already established, all on site MSH Group members shall REMOVE their Personal Padlocks from the MSH Group Lockbox then one of the group members shall REMOVE the MSH Control Padlock, and PLACE the key to the individually keyed MSH Padlock in the MSH Group Lockbox.
    - 3.27.1.5. ATTACH the MSH Control Padlock and LOCK the MSH Group Lockbox.
    - 3.27.1.6. ENSURE that all MSH LOTO Holders present from the group place their Personal Padlocks on the Multi Shift Holder Group Lockbox.
    - 3.27.1.7. ATTACH the MSH LOTO Holders' Personal Padlock to the MSH Group Lockbox whenever the individual MSH LOTO Holder is on-site and actively functioning as an MSH LOTO Holder on any of the individual LOTOs secured by the MSH Group Lockbox.
    - 3.27.1.8. ENSURE that all MSH Padlocks, MSH LOTO Holder Tags, and MSH Control Padlocks are left on Lockboxes after the MSH LOTO Holder(s) leave the site.
    - 3.27.1.9. COMMUNICATE any changes to his/her work group.

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3.27.1.10. When a shift change takes place, the oncoming MSH LOTO Holder shall DETERMINE any changes made to the LOTO and any impact those changes may have on the continuing work activities.

3.27.2. Performing Work

NOTE: All personnel performing work have the right to verify the LOTO EID(s).

It is the responsibility of every individual and every contractor to ensure their Personal Padlock is in place on the appropriate Lockbox at the beginning of the next day or their shift.

- 3.27.2.1. Personnel performing maintenance or inspection on equipment shall:
  - COMMUNICATE with the MSH LOTO Holder(s) each shift to discuss any changes that may have taken place.
  - ENSURE the equipment is isolated from hazardous energy sources and relieved of potentially hazardous stored or residual energy by communicating with the MSH LOTO(s) Holder prior to initiating work.
  - ATTACH a Personal Padlock to the Remote Lockbox once they have verified the MSH LOTO Holder's Tag and MSH Padlock is in place.
  - MONITOR for the accumulation of hazardous energy until the maintenance or inspection is completed.
- 3.27.2.2. Unless otherwise directed by the LOTO Authority, personnel performing work under MSH LOTO and the MSH Holders' shall REMOVE their Personal Padlocks from Lockboxes prior to leaving at the end of their shift.
- 3.27.3. Releasing a Multiple Shift LOTO Method #2
  - 3.27.3.1. The MSH LOTO Holder releasing the LOTO shall COMPLETE all normal release requirements as in section 3.18 Job Completion and LOTO Release.
  - 3.27.3.2. All MSH LOTO Holders on site shall REMOVE their Personal Padlock from the MSH Group Lockbox.
  - 3.27.3.3. One member of the group shall REMOVE the MSH Control Padlock from the MSH Group Lockbox and REMOVE the key for the MSH Padlock securing the Remote Lockbox for the LOTO which is being released.
    - 3.27.3.3.1. If active LOTOs MSH Padlock keys remain in the MSH Group Lockbox, RE-SECURE it with the MSH Control Padlock, and the Personal Padlocks of all MSH LOTO Holders on site.

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- 3.27.3.4. Once all workers have removed their Personal Padlocks from the Remote Lockbox, one MSH LOTO Holder from the group may REMOVE the MSH Padlock and MSH LOTO Holder Tag from the Remote Lockbox.
  - 3.27.3.4.1. OPEN the Remote Lockbox, REMOVE the key from the Remote Lockbox, and REMOVE the MSH Padlock and MSH LOTO Holder Tag from the Main Lockbox.
  - 3.27.3.4.2. Upon final release of the MSH LOTO, the MSH LOTO Holder that releases the LOTO shall NOTIFY the remaining MSH LOTO Holders in the group that the MSH LOTO has been released.
- 3.27.3.5. The LOTO Authority shall ENSURE that all steps in section 3.19 are completed to close out the LOTO.
- 3.28. Temporary Release of LOTO for Testing

NOTE: In cases involving equipment with a LOTO to one LOTO Holder, the LOTO Holder and the LOTO Authority may agree to allow testing of equipment without completing a Test Permit. In any case, Testing in Progress Tag(s) shall be attached to the equipment's EID(s).

- 3.28.1. The individual requesting a temporary release of LOTO for testing shall:
  - COMPLETE the LOTO Test Permit Request Form (<u>Attachment 11</u>).
  - If other LOTO Holders are currently reported on to the LOTO to be modified, REQUEST each affected LOTO Holder to sign the LOTO Test Permit Form.
  - RETURN the completed LOTO Test Permit Form to the LOTO Authority, or designee(s).
- 3.28.2. The LOTO Authority or designee shall:
  - 3.28.2.1. REQUEST the LOTO Holder, and individual(s) working under the LOTO perform the following:
    - REMOVE their Personal Padlocks(s) from the Lockbox(es).
    - REPORT OFF of the LOTO electronically or in the manual log and RETURN the LOTO Holder Walk Down Form to the LOTO Authority (<u>Attachment 5</u>).
  - 3.28.2.2. SELECT components to be tested, print Test Isolation Devices Form and Equipment Released for Testing Tags (Attachment 13).
  - 3.28.2.3. REMOVE the Main Lockbox Seal.
  - 3.28.2.4. REMOVE the Control Padlock(s).
  - 3.28.2.5. REMOVE the following from equipment isolation points that are required for the equipment to be tested:
    - Isolation padlock(s).
    - DANGER tag(s).
    - If applicable, remove Molded Case Isolation Verification tags.

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3.28.2.6.	ALIGN the equipment to be tested and attach Equipment Released for Testing Tag(s) (Attachment 13) to the affected isolation point(s).
3.28.2.7.	ATTACH Control Padlock and Released for Testing Tag(s) to the affected Main Lockbox(s).
3.28.2.8.	NOTIFY the Test Requestor Holder when equipment is ready to be tested.

NOTE: Test Permit will be valid for the duration of time agreed upon and as documented on the NRG Test Permit in the Expected Date of Completion and Expected Time of Completion sections of the Form.

and	<b>Expected Tin</b>	ne of Completion sections of the Form.
3.28.3.	When testing	g is complete, the Test Requestor shall:
3.28.3.1.	_	M each LOTO Holder listed on the LOTO Test Permit Form sting is complete.
3.28.3.2.	NOTIFY LOTO.	Y the LOTO Authority to end the testing in progress of the
3.28.4.		rary testing of LOTO is ended, the LOTO Authority or designee ed LOTO shall:
3.28.4.1.	REMO\	VE the Released for Testing Tag(s) (Attachment 13).
3.28.4.2.	If additi	ional work is required, COMPLETE the following:
3.28	.4.2.1.	PRINT the Reactivate From Test Form ( <u>Attachment 14</u> ) and the Dangers Tags for the EIDS that had been released for the test.
3.28	.4.2.2.	PERFORM the steps for placing isolation padlocks on the affected equipment per section 3.10.
3.28	.4.2.3.	If needed, PERFORM the steps for molded case breaker isolation per section 3.8.
3.28	.4.2.4.	PRINT the Main LOTO Re-Verification Form ( <u>Attachment 7</u> ) and PERFORM the steps for independent verification and test for zero energy per sections 3.11 and 3.12, and APPLY a new Main Lockbox Seal.
3.28	.4.2.5.	PREPARE and ISSUE the new LOTO Holder Walk Down Forms to all LOTO Holder(s) ( <u>Attachment 5</u> ).
3.28	.4.2.6.	If no other work is to be performed, the LOTO Holder and

LOTO Authority will RELEASE the LOTO per section 3.18.

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#### 3.29. Listed Locations

NOTE: This provision is an exception to the standard LOTO practice. This section shall apply exclusively to station defined equipment as detailed below.

Only with LOTO Authority Permission, the following steps may be taken when a LOTO request is generated for locations where it is not feasible or practical to travel to the control room to lock onto a Main Lockbox

- 3.29.1. The Plant Manager shall DEVELOP a list of locations, and the equipment or specific jobs that fall into this category and approve that list by signature.
- 3.29.2. The Listed Locations shall also be APPROVED by the Region Operations VP and Safety VP. The list shall include all of the following:
  - Identify the qualified employee(s) authorized to be a LOTO Holder for these areas.
  - The specific corresponding area(s) that each LOTO Holder is authorized to be a LOTO Holder.
  - The specific equipment or system for which the LOTO Holder may be authorized to be the LOTO Holder.
  - Any addition to the list requires re-approval of the Plant Manager, Region Operations VP, and Safety VP approval.

Life Critical
Step
3.29.3.

Life Critical
Step
3.29.4.

Life Critical
Step
3.29.5.

Life Critical
Step
3.29.6.

The person requesting the LOTO shall COMPLETE and SUBMIT a LOTO Request Form (<u>Attachment 2</u>) to the LOTO Authority.

The LOTO Authority shall EVALUATE the LOTO request and understand the scope of work to be performed under the requested LOTO.

The LOTO Authority shall DEVELOP the ESIP.

A  $2^{nd}$  LOTO Authority shall independently VERIFY the ESIP.

3.29.7. After reviewing the Plant Manager approved list of "Listed Locations" identifying authorized individuals, the LOTO Authority shall:

Life Critical Step

3.29.7.1. CONDUCT a LOTO Job Safety Briefing with all involved employees.

- 3.29.7.2. PROVIDE the LOTO Holder Tags, a copy of the LOTO Request Form (Attachment 2), and a Remote Lockbox to the LOTO Holder.
- 3.29.7.3. ENSURE that the Authorized Employees who are involved with the Isolation Padlock and Danger Tag placement (Tag Hangers), and the individuals performing independent verification are capable of performing the steps safely and that they are listed on the Plant Manager approved list of "Authorized Employees" knowledgeable in specific systems (refer to 3.1.1).
- 3.29.7.4. ASSIGN a Tag Hanger to position the EID(s) as listed on the ESIP in the required position and in the proper sequence, and attach Isolation Padlocks and tags.

Life Critical Step

3.29.8.

3.29.7.5. PROVIDE the Tag Hanger with all Danger Tags, required Isolation Padlocks, and the ESIP.

The Tag Hanger shall position the EID(s) as listed on the ESIP in the required position and in the correct sequence, and attach Isolation Padlocks and Danger Tags. The Tag Hanger shall initial each tag.

- 3.29.8.1. If the Tag Hanger identifies one or more EIDs that are not labeled, the Tag Hanger shall immediately STOP execution of the hanging of the LOTO and CONTACT the LOTO Authority.
- 3.29.8.2. The LOTO Authority and the Tag Hanger shall CONFIRM the EID is the correct EID before completing the hanging of the LOTO. The EID will be immediately labeled with either a temporary or permanent label.
- 3.29.9. The LOTO Authority shall ASSIGN an authorized employee who is not the person who installed the LOTO and has knowledge of the system being isolated to independently verify each EID and initial each Danger Tag.
- 3.29.10. The LOTO Authority shall ASSIGN an Authorized employee(s) knowledgeable in the system to perform a zero energy check of components identified on the Main LOTO Form.
- 3.29.11. The Tag Hanger shall PLACE keys to the Isolation Padlocks in the Remote Lockbox.
- 3.29.12. The LOTO Holder shall SECURE the Remote Lockbox with the LOTO Holder's Padlock and Tag, and SIGN onto the Main LOTO Form with the date and time.

Life Critical Step

- 3.29.13. The LOTO Holder shall complete the LOTO walk down verifying the position of the EIDs, Danger Tags and Isolation Padlocks in accordance with the LOTO ESIP.
- 3.29.14. The LOTO Holder shall RESOLVE any discrepancies found in placement or number of padlocks required with the LOTO Authority before proceeding further.
- 3.29.15. Employees performing work shall ENSURE the equipment is properly isolated from hazardous energy sources and relieved of potentially hazardous stored energy and ATTACH a Personal Padlock to the Remote Lockbox prior to performing work.

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3.29.16. Job Completion

3.29.16.1. Personnel performing work shall REMOVE their Personal Padlock(s) at the completion of the job assignment or as required by the LOTO Holder.

3.29.16.2. The LOTO Holder shall ENSURE the work is complete, and:

3.29.16.2.1. SIGN OFF on the Main LOTO Form.

3.29.16.2.2. REMOVE his/her LOTO Holders Padlock.

3.29.16.2.3. REMOVE the Isolation Padlocks from the EID(s).

3.29.16.3. The LOTO Authority shall ENSURE that the Authorized Employees who are involved with the lock and tag removal (Tag Removers), and the individuals performing independent verification are capable of performing the steps safely and that they are listed on the Plant Manager approved list of "Authorized Employees" knowledgeable in specific systems (refer to 3.1.1).

3.29.16.4. The LOTO Holder shall COMMUNICATE with the LOTO Authority and REPORT conditions regarding the equipment prior to repositioning EIDs.

- If the LOTO Authority grants permission to the LOTO Holder (or another Authorized employee) to reposition EID(s), the LOTO Authority shall CONDUCT a LOTO Job Safety Briefing identifying hazards and the steps involved in performing the LOTO.
- The LOTO Holder shall RETURN all Isolation Padlocks, Danger Tags, and LOTO forms to the LOTO Authority.

Life Critical Step

Life Critical

Step

3.29.16.5.

The LOTO Authority shall ASSIGN an Authorized employee knowledgeable in the system, and who did not reposition the components, to independently verify that all tags/locks have been removed and that all equipment is ready for service and acknowledge on the LOTO Form.

3.29.16.6. The LOTO Authority shall CLOSE OUT the LOTO in the tagging computer or the manual log.

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## **Additional Requirements**

#### 3.30. Contractors

- 3.30.1. NRG uses Lockout/Tagout (LOTO) Procedures for isolating energy sources associated with equipment or machinery to ensure it is in an inoperative/safe mode before servicing or maintenance is performed.
- 3.30.2. Compliance with this procedure is required at all times.
- 3.30.3. Failure to comply with these rules could result in serious injury -- violations will not be tolerated.
- 3.30.4. Only Authorized Personnel shall hang or remove tags and/or locks on NRG isolation points.
- 3.30.5. Only Authorized Personnel may manipulate switches, controls, breakers, valves, etc.
- 3.30.6. Authorized NRG personnel, through the contractor liaison, will arrange for the manipulation of said equipment within the framework of the Lockout/Tagout Procedure.
- 3.30.7. The contractor liaison is responsible for establishing the LOTO boundaries with the Authorized NRG personnel to ensure equipment or systems are safe for work.
- 3.30.8. Specific requirements used to isolate potential energy sources shall be made available to every worker assigned to interface with the equipment or systems isolated.
- 3.30.9. Upon the site Plant Manager's written approval and the contractor having attended NRG Energy LOTO training, a non-NRG individual can be authorized to be a LOTO Authority and/or LOTO Holder.
- 3.30.10. All outside contractors/service personnel shall work under the direction of an NRG Energy Representative or an approved Resident Contractor.

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#### 3.31. Administrative Removal

- 3.31.1. If a Personal Padlock is left on a Lockbox by a person that has left the site for the day and the Padlock must be removed, the person requesting Padlock removal or his/her designee shall:
  - 3.31.1.1. VERIFY that the individual is NOT at the site.
  - 3.31.1.2. COMPLETE the Request for Administrative Lock Removal (Attachment 15).
  - 3.31.1.3. CONTACT the individual using means such as:
    - Home phone
    - Cell phone
    - Plant page
    - Email
  - 3.31.1.4. If the individual cannot be reached, CONTACT the individual's supervisor to verify:
    - The individual is not on site and unavailable.
    - The job is in a condition that it is acceptable to remove the person's Personal Padlock for the needed change.
- 3.31.2. The LOTO Authority shall OBTAIN permission from the Plant Manager or designee to proceed with removal in the absence of contact with the individual.
- 3.31.3. The LOTO Authority or designee shall REMOVE personal padlock.
- 3.31.4. The person requesting padlock removal or LOTO Authority shall INFORM the person whose padlock was removed that their Personal Padlock is no longer in place.
- 3.31.5. The person requesting padlock removal or LOTO Authority shall ENSURE that the person whose padlock was removed signs the Request for Administrative Removal Form prior to going back to work.
- 3.31.6. If the person requesting padlock removal is not the LOTO Holder, the LOTO Authority shall INFORM the LOTO Holder of the Administrative Removal.
- 3.31.7. The LOTO Authority shall MAINTAIN the Request for Administrative Removal Form on file with the LOTO in accordance with section 5.0.

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#### 3.32. Inspections

- 3.32.1. Monthly Inspection
  - 3.32.1.1. The Plant Manager shall ASSIGN an Authorized Employee to conduct a monthly inspection of at least one active LOTO. The intent of the inspection is to identify and correct any deviations or inadequacies in the application of the LOTO procedure.
    - 3.32.1.1.1. The Authorized Employee shall CONDUCT the inspection utilizing the LOTO Inspection Form (<u>Attachment 16</u>), however the inspector cannot be the individual who created the LOTO or an Authorized Employee working under the protection of the LOTO being inspected.
- 3.32.2. Annual Inspection
  - 3.32.2.1. The Plant Manager shall ENSURE that an annual review is conducted to ensure that each active LOTO is still required. This review shall be conducted as follows:
    - 3.32.2.1.1. For any LOTO that has been active greater than 180 days, a field check shall be conducted to ensure all tags are still in place and legible.
    - 3.32.2.1.2. The individual completing this review shall DOCUMENT his/her findings in a written report and FORWARD the report to appropriate site personnel for review, corrective action and retention.
- 3.33. LOTO Procedure Review
  - 3.33.1. The VP, Safety and Technical Training shall ENSURE that this procedure is reviewed:
    - Annually by the NRG Plant Operations LOTO Team.
    - As necessary due to procedure enhancements or process changes.
    - As regulations or standards change with input from Safety Personnel.

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## 4.0 Emergency Response

4.1. In case of emergency, follow worksite emergency procedures.

## 5.0 Recordkeeping

- 5.1. LOTO electronic data shall be maintained on file for the current year plus one year.
- 5.2. All completed LOTO forms shall be maintained on file for the current year plus one year.
- 5.3. LOTO tags may be destroyed after closing the LOTO. Where an accident or serious safety violation is involved, retain tags and other pertinent records indefinitely.
- 5.4. The Plant Manager shall determine how best to maintain the various Plant Manager Approved Lists (<u>Attachment 17</u>).
- 5.5. Training records for individual employees shall be maintained per the <u>Safety & Health Training NRG-1004</u>.
- 5.6. Training records or certifications of training for contractors shall be maintained on file for the current year plus one year.

#### 6.0 **Definitions**

6.1. Administrative Removal

The removal of an individual's lock once the individual has left the site and attempts to contact the individual have failed and it is necessary to remove locks from the LOTO.

6.2. Affected Employee

An individual whose job requires him/her to operate or use a machine or equipment which servicing or maintenance is being performed under LOTO, or whose job requires him/her to working in an area in which such servicing or maintenance is being performed. An NRG affected employee becomes an authorized employee when that individual's duties include performing services or maintenance on equipment.

6.3. Authorized Employee

An NRG employee or approved contractor trained in the company's LOTO procedure that locks out or tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment. An affected employee becomes an authorized employee when that individual's duties include performing servicing or maintenance covered under this section. Authorized Employees include the LOTO Authority, the LOTO Holder, Tag Hangers and Removers, anyone assigned to Perform Lockout/Tagout (LOTO) functions on equipment, or performs maintenance or inspection on equipment under LOTO.

#### 6.4. Conditional LOTO

This LOTO applies exclusively to station defined equipment that while isolated must be operated during the repair process. The Conditional LOTO is intended as the exception rather than a standard practice.

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#### 6.5. Designee

An NRG employee selected for specific duties by worksite management who is an Authorized Employee and has knowledge of the hazards involved for those specific duties.

#### 6.6. Energy Isolating Device (EID)

A mechanical device that physically prevents the transmission or release of energy, including but not limited to the following: A manually operated electrical circuit breaker; a disconnect switch; a manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors, and, in addition, no pole can be operated independently; a line valve; a block; and any similar device used to block or isolate energy. Push buttons, selector switches and other control circuit type devices are not energy isolating devices.

#### 6.7. Equipment Release

Equipment is released back to Operations. Normally this equipment is in an operationally intact state and ready for service.

#### 6.8. Equipment Specific Isolation Procedures (ESIP)

Written procedural steps that shall be followed by the Authorized Employee in a specific order to establish boundaries or isolation points that control hazardous energy for machinery or equipment to be serviced or maintained.

#### 6.9. Hazardous Energy Sources

An energy source, or potential energy source, that could cause harm to personnel. (Examples are electrical; hydraulic, pneumatic, gas, or steam pressure; vacuum; high temperature; potentially reactive chemicals; radioactivity; or stored mechanical energy).

#### 6.10. Independent LOTO Authority

A second LOTO Authority responsible for reviewing and verifying that an ESIP is adequate for the protection of all personnel performing work described in the LOTO request and is performed separately (time and distance) from the LOTO Authority who developed the LOTO.

#### 6.11. Independent Verification

A physical check to verify that equipment is isolated from hazardous energy sources completed by an authorized employee other than the person that installed the LOTO, and separated by time and distance. The person performing this function is responsible to ensure that the tag hanger performed all the steps of the LOTO in accordance with the <a href="ESIP">ESIP</a>, <a href="EID">EID</a>s are in the proper locked and tagged position, and the information on the Danger Tags is properly completed and correct.

Life Critical Step

#### 6.12. Life Critical Steps

The Life Critical Steps are identified as the most critical steps performed in the LOTO Process to ensure employee safety. These steps are noted in this procedure (as shown by the box to the left of the step) to maintain the focus on these critical steps (steps are listed in section 1.5 of this procedure).

#### 6.13. LOTO Acceptance

Reporting onto the LOTO on the computer or signing the manual log, and attaching the LOTO Holder's Padlock(s) and tags(s) to the lockbox(s).

#### 6.14. LOTO Authority

This person(s) designated by work site management to have the authority to grant or deny any request for equipment LOTO and grant or deny Equipment LOTO releases.

#### 6.15. LOTO Device (Lockout Device)

A device applied to an <u>EID</u> capable of accepting multiple padlocks. Lockout devices must be able to withstand the environmental exposure for the expected time the equipment is to be locked out and shall be constructed to be substantial enough to prevent removal without the use of excessive force or unusual techniques.

#### 6.16. Lockout

The placement of a lockout device on an energy-isolating device, in accordance with (IAW) an established procedure, ensuring that the energy-isolating device and the equipment being controlled cannot be operated until the lockout device is removed.

#### 6.17. Lockout device

Any device that uses positive means, such as a lock, blank flanges and bolted slip blinds, to hold an energy-isolating device in a safe position, thereby preventing the energizing of machinery or equipment.

## 6.18. Lockout/Tagout (LOTO)

Authorization granted by the worksite LOTO Authority, to perform maintenance or inspection after the equipment has been isolated from hazardous energy sources and rendered inoperable (procedural not a definition, see <u>Lockout</u> and <u>Tagout</u> definitions).

#### 6.19. LOTO Holder

An authorized employee that requests and/or accepts the LOTO.

#### 6.20. LOTO Holder Walk Down Form

A Form listing all significant LOTO information, equipment name, LOTO Holder name, reason for the LOTO, ESIP with EID locked position list, main lock box lock set(s) and main lock box seal numbers. To be retained by the LOTO Holder for the duration of the work. Form to be turned in to the LOTO Authority if the LOTO is to be released at work completion, or if the LOTO is to be modified, temporarily released for test, or the seal is broken or missing on an unsecured main lock box (Attachment 5).

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#### 6.21. LOTO Release

When a LOTO Holder has removed the LOTO Holder's tag(s), Personal Padlock(s) and has reported off the LOTO on the computer or Manual LOTO Log thereby releasing control of the LOTO.

#### 6.22. Main Lockbox

A device designed to hold and secure the keys of Isolation Padlocks. This includes a mounted lock board used for securing the keys for isolation padlocks.

#### 6.23. Main Lockbox Seal

An individually numbered single use seal recorded on the Main LOTO Form and applied by an Authorized Employee at the direction of the LOTO Authority on a Main Lockbox after any Independent Verification.

#### 6.24. Main LOTO Form

A Form including acknowledgement of procedural steps, ESIP, equipment name, main lockbox, lockset and original seal number, reason for the LOTO (<u>Attachment 6</u>).

#### 6.25. Multi Shift Holder Group box (MSH Group box)

A box used to secure the individual MSH LOTO Holder Padlock keys under the control of a common Multi Shift Holder group.

## 6.26. Padlocks – Types of Padlocks:

#### 6.26.1. Contractors Padlock

- Black in color.
- A padlock utilized by each contractor for securing equipment EID(s), lockboxes, or for individual's personal protection.
- Each Contractor shall provide their own locks.
- Contractor Padlocks must be identifiable and labeled with the individual's full name and the name of the contractor company or some other means of personal identification.
- This padlock must be individually keyed.

#### 6.26.2. Control Padlock

- Yellow in color.
- A padlock locked and controlled by the LOTO Authority.
- These padlocks shall only be used on lockboxes to prevent removal of the Isolation Padlock key(s) located inside the lockbox.
- The lock shall be clearly marked and identified as a control padlock.
- Can be individually or keyed alike.

#### 6.26.3. Isolation Padlocks

- · Red in color.
- A padlock attached to EID(s) by an Authorized Employee.
- These padlocks shall only be used on Lockout devices.
- The lock shall be clearly marked and identified as an isolation padlock.
- These padlocks may be keyed alike as controlled sets or individually keyed.

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#### 6.26.4. LOTO Holder's Padlock

- Blue in color.
- A padlock attached by the LOTO Holder, to prevent removal of Isolation Padlock key(s) located in the lockbox.
- LOTO Holder's padlocks must be identifiable and labeled with the LOTO Holder's Name.
- This padlock must be individually keyed.

#### 6.26.5. Multiple Shift LOTO Holder Padlock (MSH padlock)

- Purple in color.
- A padlock utilized by the Multiple Shift LOTO Holders as a team to facilitate the implementation of the LOTO procedure when a Multiple Shift LOTO is used.
- Placed on the main lock box with an MSH tag.
- This key to be captured in the remote lock box for the MSH LOTO, and secured by the MSH Control Padlock (below).
- This lock can only be removed by any of the authorized Multiple Shift LOTO Holders after all personal locks are removed.
- This padlock must be individually keyed.

#### 6.26.6. Multiple Shift LOTO Control Padlock (MSH Control lock)

- Purple in color with yellow label identification as MSH Control Lock.
- Placed with an MSH LOTO Holder Tag at the remote lock box that workers lock onto to when performing work under an MSH LOTO using Method #1.
- Place at an MSH Group box when using MSH Method #2.
- Individually keyed lock with multiple keys available.

#### 6.26.7. Personal Padlock

- Blue in color.
- A padlock issued to each NRG employee for securing one equipment EID, lockboxes, or for the individual's personal protection.
- Personal padlocks must be identifiable and labeled with the individual's name.
- This padlock must be individually keyed.

#### 6.27. Qualified Electrical Worker (QEW)

#### A person familiar with:

- The construction, maintenance and operation of the equipment and hazards involved and/or a person trained and competent in the skills and techniques necessary to distinguish exposed live parts from other parts of electrical equipment.
- The skills and techniques necessary to determine the nominal voltage of exposed live parts.
- The minimum approach distances corresponding to the voltages to which the individual may be exposed.
- The proper use of precautionary techniques, PPE, insulating and shielding materials and tools for working on or near energized parts.

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#### 6.28. Remote Lockbox

A device designed to hold and secure the key of a LOTO Holder's individually keyed padlock that is attached to a Main Lockbox.

#### 6.29. Resident Contractor

Long term contractor independently operating and/or maintaining NRG equipment and systems.

#### 6.30. Re-Verification Form

A Form that lists the current Main Lockbox Seal, lockset, Main Lockbox number, current ESIP, and EID list to support verification. It is issued for re-verification after LOTO modification, temporary release for test, or seal replacement (Attachment 7).

#### 6.31. Tagout

The placement of a tagout device on an energy-isolating device, in accordance with an established procedure, to indicate that the energy-isolating device and the equipment being controlled may not be operated until the tagout device is removed.

#### 6.32. Tagout device

Any prominent warning device, such as a tag and a means of attachment that can be securely fastened to an energy-isolating device to indicate that the machine or equipment to which it is attached may not be operated until the tagout device is removed.

#### 6.33. Tag Types:

#### 6.33.1. Grounding Tag

A tag affixed to a grounding device and included with LOTO. It contains the following information: LOTO Number, Equipment Description, Equipment location, position of the equipment, Main Lockbox Number.

#### 6.33.2. Danger Tag

A red and black tag affixed to an EID. It contains the following information: LOTO Number, Equipment Description, Equipment location, position of the equipment, Main Lockbox Number, Lock Set Number (Attachment 2).

#### 6.33.3. Control Tag

A red and black tag that is attached to the Main Lockbox with the Control Lock. It contains the following information: LOTO Number, Equipment ID, Equipment Description, and Main Lockbox Number.

#### 6.33.4. LOTO Holder Tag

A red and black tag that contains the following information: LOTO Number, LOTO Holder's Name, Equipment ID, Equipment Description, LOTO Holder's Report On Date/Time, Main Lockbox Number and if applicable the Remote Lockbox Numbers. This Tag is attached on the LOTO Holder's Lock on the Main Lockbox and on the Remote lockbox if used.

#### 6.33.5. Molded Case Breaker Isolation Verification Tag (MCB Tag)

A tag attached to a molded case breaker indicating that the load side of the breaker circuit has been verified as de-energized.

CONTROLLED DOCUMENT - Verify that only the LATEST version of this document is used.

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#### 6.33.6. Testing In Progress Tag

The tag attached to a Lockout device allowing temporary release of a LOTO for testing of specific equipment.

6.34. Test Permit Form

The Form used to obtain a temporary release of a LOTO for testing specific equipment (<u>Attachment 11</u>).

6.35. Test for Zero Energy

Confirmation of zero energy conducted prior to issue of the LOTO Holder Walk down Form (Attachment 5), and LOTO Activation (refer to 3.14).

#### 7.0 References

- 7.1. Occupational Safety and Health Standards for General Industry, <u>29 CFR 1910.269</u>, (d). Hazardous energy control (Lockout/Tagout) procedures
- 7.2. Occupational Safety and Health Standards for General Industry, <u>29 CFR 1910.147</u>. The control of hazardous energy (Lockout/Tagout)
- 7.3. Occupational Safety and Health Standards for General Industry, <u>29 CFR</u>
  <u>1910.333(a)</u>. Electrical Standard Number: 1910.333 Title: Selection and use of work practices
- 7.4. Occupational Safety and Health Standards for General Industry, <u>29 CFR</u>
  <u>1910.333(c)</u> Electrical Standard Number: 1910.333 Title: Selection and use of work practices

#### 8.0 Support Documents

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Attachment 1 – Molded Case Breaker Isolation Verification Tag



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## Attachment 2 – LOTO Request Form

LOTO Request Form									
LOTO Request  Note: To be completed by LOTO Requestor and forwarded to the LOTO Authority									
Requestor Name: Craft:						Submitted Date:			
Phone Number:		Radio Channel:		Work Order:					
Plant:			Unit:	T					
LOTO to be Accepted	d and Reported on b	y:		Date LOTO ne	eded: Time LOTO needed:				
		Type of L	OTO Request:						
LOTO?	Listed Location?	Conditional?	Multi Shift Holde	r? Modified w		Remote Lock Box?			
☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes [	] No	☐ Yes ☐ No			
Reason for Multi Shif	ft LOTO:								
Names of Multi Shift	LOTO Holders								
Equipment Deceription									
Equipment Description	on:								
Detailed work scope:	:								
Special Conditions o	f Equipment								
		LOTO	Approval leted by LOTO Authorit	v					
Request Approved	LOTO Authority		Signature:	у	Date /	Time:			
☐ Yes ☐ No			<b>g</b>						
Can an existing LOTO request?	O cover this	LOTO Number	LOTO Procedure Na	ame					
Yes No									
Authority Approve us	se of existing ESIP:		Signature:		Date /	Time:			
2 <sup>nd</sup> LOTO Authority V	/erify ESIP:		Signature:		Date /	Time:			
If Denied Notify Requestor: How Notified: Date / Time:						Time:			
☐ Yes ☐ No									
Explanation for deny	ing the LOTO reque	st:							
LOTO Execution  Note: To be completed by LOTO Authority or Designee									
LOTO Number LOTO Procedure Name: Number of Tags Number of Locks									
Limits, Dangers, & Ha	azards of this LOTO	:							

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#### Attachment 3 - Danger Tag Example



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## Attachment 4 – LOTO Job Safety Briefing Form

LOTO PROCEDURE						
LOTO JOB SAFETY BRIEFING FORM						
LOTO#						
Locks & Tags Installation:  Is the employee an Authorized Employee?  Does the employee understand the scope of the LOTO?  Does the employee have a full understanding of LOTO requirements?  Special requirements or unusual circumstances have been identified?  The location of components has been identified?  The LOTO isolation sequence has been identified?  The proper component position/alignment for system isolation is identified?  The hazards associated with performing this LOTO have been identified?  Chemical:  Respiratory:  Respiratory:  Relectrical:  Relectrical:  Radiation:  All PPE required for the tagging activity has been identified?  Job Safety Briefing By:  Authorized Employees Performing LOTO:	Yes	No				
Looks 9 Tags Damously						
1=	Yes	No				
Comments:						

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#### Attachment 5 - LOTO Holder Walk Down Form

		Р	lant Name:					
LOTO Owner:								
	LC	то но	LDER WALK	DO	WN FOR	М		
Printed on: 11/7/2014 8:56:0	00 AM					Remote Lock Box #:		
Main Lockbox #	ŧ	Addition	al Main Lock Box #:		Lo	ock Box Seal #		
Lock Set #:								
2nd Lock Set #:								
System:			Locati	ion:				
Equipment Des								
Job Description								
Reason for Tag	out:							
Work Order #:	ad Dv.		Add additiona			e LOTO Issue Memo Section		
LOTO Requeste	ей Бу:			LO	O Requested D	oate:		
Walkdown com	pleted by:				Date/time:			
LOTO Holder								
Reporting on Lo	ото:				Date/time:	·		
LOTO Released	l by:				Date/time:	:		
Walkdown By:	Isolation Device	e:						
	Location:							
	Device ID:		1					
	Lockable:		Tag Type: Danger			TAG #:		
	If No - Contro	led How:		_				
	LOTO State:			Nor	mal State			
	Information:							
	Hazard Source	): 			Device Type:			
	Hazard Magnit	ude:			Tag Status			
Walkdown By:	Isolation Device	e:						
	Location:							
	Device ID:							
	Lockable: Tag Type: Danger TAG #:							
	If No - Contro	led How:						
	LOTO State: Normal State							
	Information:							
	Hazard Source	·			Device Type:			
	Hazard Magnit				Tag Status			
	. iuzui a magilit				. ay olalas			

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#### Attachment 6 - Main LOTO Form

			Plant Nan	ne:				
LOTO Owner:								
MAIN LOTO FORM								
Printed on: 12/5/2014 2:43	3:00 PM		LOTO No.					
Lock Set #	ŧ		<del></del>		ı	Main Lock Box #		
2nd Lock Set #:	:				ı	ock Box Seal #		
System:					Ĺ	ocation:		
Equipment Des	cription/Name:							
Job Description								
Reason for Tag	out:							
Work Order #:			Add Add	itional Work	Order #	s to the LOTO Issue	Men	no Section
LOTO Requeste					Requ	ested Date:		
LOTO ESIP Initi	iated By:				Init	iated Date:		
LOTO ESIP Ver					Ve	rified Date:		
	tallation Job Safet	•						
Locks/Tags Rei	moval Job Safety	Briefing E	By / Date:					
		HOL	DER REPORT (	ON / OFF S	ECTION	•	.—	
Holder Verified	Report On Report Off Report Off							Date / Time Report Off
			(Initial)			(iiitiai)		
	+							
	+							
	+							
	+							
	+							
							-	
Authority Verifies all Holders Reported Off By: Date:  Date:								
Hung By:	Isolation Device:							Removed By
riung by.	Location:							Removed By
	Device ID:							
	Lockable:		Tag Type: Dan	ger		TAG #:		
Verified By	If No - Controlle	d How:						Verified By
	LOTO State:			Normal Sta	ate:			
Zero Energy Check By	Information:				•			
_	Hazard Source:				Device	Type:		
:	Hazard Magnitud	lo.				Status:		
	riazaru mayintut	16.			,	Jiaius.		

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#### Attachment 7 - Main LOTO Re-Verification Form

		Plant Name	<b>)</b> :					
	LOTO Owner:							
MAI	N LOTO RE-VE	RIFICATION	FORM	LOTO	No.			
Printed on: 12/5/2014 8:43:00	AM							
Lock Set #:		·	Nev	w Lock Box Seal #				
2nd Lock Set #: Added Main Lock Box #								
Added Lock Set# Added Main Lock Box Seal #								
Reason for Re-Veri	ification:							
System:			Loca	ation:				
<b>Equipment Descrip</b>	otion/Name:							
Job Description:								
Reason for LOTO:								
Work Order #: LOTO Requested E	, D.,,	Add Add		s to the LOTO Issue	Memo Section			
LOTO ESIP Initiate			LOTO Requ LOTO ESIP Ini					
LOTO ESIP Verified			LOTO ESIP Ve					
	al Job Safety Briefing	By / Date:						
	<u> </u>	DER REPORT O	N / OFF SECTION	ON:				
Holder Verified L	OTO by Walkdown	LOTO Holder	Date / Time	LOTO Holder	Date / Time			
LOTO Holder	LOTO Authority	Report On: (Initial)	Report On	Report Off (Initial)	Report Off			
				·				
Authority Verifies a	all Holders Reported Of	ff By:		Date:				

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## Attachment 8 - Added Isolation Devices Form

Plant Name:								
	LOTO Owner:							
ADDED ISOLATION DEVICES FORM								
Printed on: LOTO #: 11/14/2014 9:42:00 AM								
Lock Set #: Main Lock Box #								
2nd Lock Set #	2nd Lock Set #: Lock Box Seal #							
System:					Lo	ocation:		
Equipment Des	cription:							
Job Description	n:							
Reason for Tag	jout:							
Work Order #:			Add Addi	tional Worl	Order #s	to the N	Modification (	Section:
Reason for Mod	dification:							
Modification Cr	eated By:					Dat	e:	
Modification Ve	erified By:					Dat	e:	
	tallation Job Sa	fety Briefing B	By / Date:					
		•	•					1
Hung By:	Isolation Device	ce:						Removed By
	Location:							
	Device ID:							_
Verified By	Lockable:		Tag Type:			T/	AG #:	Verified By
verified by	If No - Control	led How?		Normal St	oto:			Verified by
Zero Energy Check By	Information:			Normai St	ate.			
	Hazard Source	e:			Device 1	Туре:		
	Hazard Magnit	tude:				tatus:		
			•	•			•	

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## Attachment 9 - Removed Isolation Devices Form

	Plant Name:							
	LOTO Owner:							
	REMOVED ISOLATION DEVICES FORM							
	<b>Printed on:</b> LOTO #: 12/5/2014 9:51:00 AM							
Loc	Lock Set #: Main Lock Box #							
2nd	2nd Lock Set #: Lock Box Seal #							
Syst	em:				Locat	ion:		
Equ	pment Description:							
Job	Description:							
Rea	son for Tagout:							
	k Order #:		Add Add	itional Work	Order #s to t	he Modification S	ection:	
Rea	son for Modification:							
	oval Modification Created	d By:				Date:		
		•						
	oval Modification Verified		/ D - / -			Date:		
Loc	ss/Tags Removed Job Sa	rety Briefing By	/ Date:					
	Isolation Device:						Removed By	
	Location:							
	Device ID:		Ton Time: Do			TAC #-		
	Lockable:		Tag Type: Da	inger		TAG #:	Verified Dv	
	If No – Controlled How:			Normal Sta	-40.		Verified By	
	LOTO State: Information:			Normai St	ate:			
	miorination.							
	Hazard Source:				Device Type	e:		
	Hazard Magnitude:				Statu	s:		
Loc	s & Tags Removed By:					Date/Time:		
Veri	fied Locks & Tags Remov	red and equipme	ent is ready for	service By		Date/Time:		
	nou 200ko u Tugo Komo.	ou una oquipino	me to roudy for	00. 1.00 27.	•	Dato, rimo.	-	
			Modification	on Memo:				

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## Attachment 10 - Conditional LOTO Shift Log Form

	CONDITIONAL LOTO	SHIFT LOG FORM		Date / Shift: 1/29	/2015 / Select Shift		
Conditional LOTO #:	Main	Lock Box #	Non-condi	tional Remote Lock B	ox #:		
	t /s #:			ıl EIDs Remote Lock I	 Box #		
System:							
Location:							
Equipment:	Equipment:						
Requested By: Requested Date: Work Order #:							
Reason:							
This form shall be used for recording the Holder reporting On and Off Locally at the conditional equipment and record the repositioning / re-verification of the Conditional Equipment Devices. All personnel performing work on this Conditional LOTO will review the Conditional Procedure and JSA for the work to be performed.							
	nducted & documented v				res No		
Discuss and review th	e Conditional Procedure	and JSA for this specif	fic LOTO?	Y	∕es		
List the	e Conditional Energy Is	olation Devices (EIDs	s) that will be operate	d for the Conditional	LOTO:		
	Conditional LOTO I	Reporting On / Off a	and Repositioning / EIDs back in Zero				
LOTO Holder and Au	thorized Employees	Remove Lock To Position EID Date &	Energy position Locked & Tag Date	EIDs verified in Zero energy position	Holder Report On Lock back onto RLB		
Print Name	SIGNATURE	Time	& Time	Date & Time	Date & Time		
At the end of each s	hift, attach this form to	the Walkdown Form	and return to the LOT	O Authority or Desig	nee, when released.		

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## Attachment 11 – LOTO Test Permit Request Form

LOTO TEST PERMIT REQUEST FORM						
	completed by individual requesting		o the LOTO Authorit	y or Designee		
Plant Name:		Unit:				
Equipment:		ļ				
Reason for Testing:						
Requestor Name:	Date (Requested Start of Test):		Time (Requested Start of Test):			
Expected Date of Completion:	Expected Time of Completion:	Actual Date of Completion:		Actual Time of Completion:		
(Print) Name of LOTO Holder G Release for Test	ranting Temporary	LOTO Number			O Holder Granting se for Test	
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
LOTO Test Approval  Note: To be completed by the LOTO Authority or Designee						
Approved By:			[	Date:	Time:	
Limits, Dangers, Hazards of the	Test:					

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#### Attachment 12 - Test Isolation Devices Form

		SITE N	AME		
	LOTO Owner				
	TE	ST ISOLATION	DEVICES	FORM	
Printed o	on:	LOTO #:			
Loci	k Set #:			Main Lock Box #:_	
2nd Loc	:k Set #:				
System:		Locat	tion:		
Equipmen	t Description:				
Job Descr	ription:				
Reason fo	or Tagout:				
Reason fo	or Test:				
Authorize	ed by:		Date & 1	Гіте:	
	uested By				
		b Safety Briefing By / Date:			
		ON DEVICES TO BE PL			
	Isolation Device:				Danger Tag
HUNG BY	Location:				Removed By
	Device ID: Lockable:	Tag Type:	TEST	TAG#:	
	If No - Controlled How?			1110 111	
		TE	ST State:	TEST	T
	Information:				
	Hazard Source:		Device T	ype:	
	Hazard Magnitude:		Sta	tus:	
Locks &	Tags Removed By:			Date/Time:	
Test Tag	s Hung By:			Date/Time:	
		Modification M	lemo:		
Printed		Page 1 of	1 Type	: TEST	

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Attachment 13 - Equipment Released for Testing Tag





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## Attachment 14 - Reactivate from Test Form

Plant Name:						
LOTO Owner:						
	REACTIVATION FROM TEST FORM					
<b>Printed on:</b> LOTO #: 12/5/2014 9:20:00 AM						
Lock Set #	:			Main	Lock Box #	
2nd Lock Set #:	·					
System:				Locat	ion:	
Equipment Des						
Job Description						
Reason for LOT						
Reason for Tes	t:		,			
Authorized by:	singtelletion lab C	efet. Briefin v B. / Be		Date &	Time:	
LOCKS / Tags Re		afety Briefing By / Da	=			
	ISOLATION D	EVICES TO BE PL	ACED BACK IN	THE TAGGE	ED POSITION	
TAG	Isolation Device:					
HUNG BY	Location:					
	Device ID:				T	
	Lockable:		Tag Type: Dang	er	TAG #:	
	If No - Controlled	How:				
	LOTO State:			TEST State:		
	Information:					
	Hazard Source	•		Device Type	e:	
	Hazard Magnitude	!		Statu	•	
Locks & Tags I	nstalled By:			Date/Time	e:	
	Modification Memo:					
		illou	meanon memo.			

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## Attachment 15 – Request for Administrative Lock Removal

Person requesting lock removal:				
Date of Request:				
Operating Area:				
Equipment:				
LOTO Number:				
			YES	NO
s the lock needing to be removed a LO	TO Holder Lock?			
_OTO Holder Name:				
s the lock needing to be removed a Per	sonal Lock?			
Personal lock (Employee Name):				
Was the employee reached to verify job status?				
Nas the employee reached to verify job	siaius:			
Once job status is verified, the	status?	ity may rem	ove the le	ock.
Once job status is verified, the Person responsible for informing	status?	ity may rem	ove the le	ock.
Once job status is verified, the Person responsible for informing	e LOTO Author			
Once job status is verified, the Person responsible for informing 'owner" of lock removal:  (Owner must be notified p	e LOTO Author	t of his/her r	next shift)	
Once job status is verified, the Person responsible for informing 'owner" of lock removal:  (Owner must be notified p	e LOTO Author	t of his/her r	next shift)	)
Once job status is verified, the Person responsible for informing 'owner" of lock removal:  (Owner must be notified purple owner of the lock was informed of the response of the lock was informed of the l	e LOTO Author  orior to the start  moval on Date / Time	t <b>of his/her r</b> by the following	next shift) I means:	
Once job status is verified, the Person responsible for informing Yowner" of lock removal:  (Owner must be notified pure the owner of the lock was informed of the recovery of the lock was informed of the	e LOTO Author  orior to the start  moval on Date / Time	t <b>of his/her r</b> by the following	next shift) I means:	
Once job status is verified, the Person responsible for informing Yowner" of lock removal:  (Owner must be notified purple owner of the lock was informed of the recovery designed approved the plant manager or designee approved the	e LOTO Author  prior to the start  moval on Date / Time  Other	t <b>of his/her r</b> by the following	next shift) I means:	
Once job status is verified, the Person responsible for informing Yowner" of lock removal:  (Owner must be notified purple owner of the lock was informed of the recovery designed approved the plant manager or designee approved the	e LOTO Author  prior to the start  moval on Date / Time  Other	t <b>of his/her r</b> by the following	means:	

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## Attachment 16 – LOTO Inspection Form

LOTO Inspection Form								
This form is to be used to document a LOTO inspection. The inspection shall be performed by an Authorized Employee <a href="mailto:not inspected">not involved</a> with the LOTO being inspected.								
	NOTE: Use one form for each LOTO inspected.							
LOTO INFORMATION:								
Facility	Facility: Date:							
LOTO #: LOTO Type:								
System/Equipment:								
Work S	Scope /Jo	ob Desc	ription:					
RLBs ii	nspected	d:						
			PERSONNEL INVOLV	'ED:				
LOTO	Holders:							
LOTO	Authority	<b>/</b> :		Title:				
Contra	ctor Sup	ervisor:		Title:				
<ul> <li>If any major discrepancy is found, the job will be stopped immediately and the discrepancy corrected.</li> <li>Attach a copy of all related LOTO documentation to the inspection report.</li> <li>Attach a copy of any LOTO component tags found to have discrepancies.</li> <li>Attach a copy of any standard LOTO or ESIP modified as a result from the inspection.</li> <li>If the inspection identifies a deficiency in any employee's knowledge regarding the LOTO Program, the employee must be retrained in accordance with the requirements of the program.</li> </ul>								
		INSPECTION CHECKLIST Satisfactory?						
Yes			Inspection	Requirement				
Ш	No	N/A	Did the LOTO request identify the equipmer being performed? The Request Form is prejinitialed.					
	No		Did the LOTO request identify the equipmer being performed? The Request Form is pre	nt and the work scope clearly for the work coared correctly and properly signed and re (ESIP) or Standard/Layout correct, up to				
	No		Did the LOTO request identify the equipmer being performed? The Request Form is prejinitialed.  Is the Equipment Specific Isolation Procedu	nt and the work scope clearly for the work coared correctly and properly signed and re (ESIP) or Standard/Layout correct, up to				
			Did the LOTO request identify the equipmer being performed? The Request Form is prejinitialed.  Is the Equipment Specific Isolation Procedu date, and adequate for the work performed?  Verify that all hazardous energy associated	nt and the work scope clearly for the work correctly and properly signed and re (ESIP) or Standard/Layout correct, up to with the system or components were taken				
			Did the LOTO request identify the equipmer being performed? The Request Form is prejinitialed.  Is the Equipment Specific Isolation Procedu date, and adequate for the work performed? Verify that all hazardous energy associated into consideration.  Verify that the Main LOTO Form is prepared.	at and the work scope clearly for the work correctly and properly signed and are (ESIP) or Standard/Layout correct, up to with the system or components were taken a correctly, properly signed, and initialed.				
			Did the LOTO request identify the equipmer being performed? The Request Form is prejinitialed.  Is the Equipment Specific Isolation Procedu date, and adequate for the work performed? Verify that all hazardous energy associated into consideration.  Verify that the Main LOTO Form is prepared. Verify that the Walk Down Form is prepared. Verify that the correct energy isolating devict tagged in the correct position.	at and the work scope clearly for the work bared correctly and properly signed and bre (ESIP) or Standard/Layout correct, up to with the system or components were taken a correctly, properly signed, and initialed. I correctly, properly signed, and initialed. I correctly, properly signed, and initialed.				
			Did the LOTO request identify the equipmer being performed? The Request Form is prejinitialed.  Is the Equipment Specific Isolation Procedu date, and adequate for the work performed? Verify that all hazardous energy associated into consideration.  Verify that the Main LOTO Form is prepared. Verify that the Walk Down Form is prepared. Verify that the correct energy isolating devict tagged in the correct position.	at and the work scope clearly for the work correctly and properly signed and are (ESIP) or Standard/Layout correct, up to with the system or components were taken a correctly, properly signed, and initialed.				
			Did the LOTO request identify the equipmer being performed? The Request Form is prejinitialed.  Is the Equipment Specific Isolation Procedu date, and adequate for the work performed? Verify that all hazardous energy associated into consideration.  Verify that the Main LOTO Form is prepared Verify that the Walk Down Form is prepared Verify that the correct energy isolating devict tagged in the correct position.  Verify that the control Tag and Lock were us correct positions on the Main Lock Box?  Main Lock Box Seal in place and Seal numbers.	at and the work scope clearly for the work bared correctly and properly signed and bre (ESIP) or Standard/Layout correct, up to with the system or components were taken a correctly, properly signed, and initialed.  I correctly properly signed, and initialed.				
			Did the LOTO request identify the equipmer being performed? The Request Form is prejinitialed.  Is the Equipment Specific Isolation Procedu date, and adequate for the work performed? Verify that all hazardous energy associated into consideration.  Verify that the Main LOTO Form is prepared Verify that the Walk Down Form is prepared Verify that the correct energy isolating devict tagged in the correct position.  Verify that the control Tag and Lock were us correct positions on the Main Lock Box?  Main Lock Box Seal in place and Seal numbers.	at and the work scope clearly for the work bared correctly and properly signed and are (ESIP) or Standard/Layout correct, up to with the system or components were taken a correctly, properly signed, and initialed. I correctly, properly signed, an				
			Did the LOTO request identify the equipmer being performed? The Request Form is prejinitialed.  Is the Equipment Specific Isolation Procedu date, and adequate for the work performed? Verify that all hazardous energy associated into consideration.  Verify that the Main LOTO Form is prepared Verify that the Walk Down Form is prepared Verify that the correct energy isolating devict tagged in the correct position.  Verify that the control Tag and Lock were us correct positions on the Main Lock Box?  Main Lock Box Seal in place and Seal number 1s the Holder reported on, and Holders tag and Holders reported on the LOTO are included.	and the work scope clearly for the work coared correctly and properly signed and bre (ESIP) or Standard/Layout correct, up to with the system or components were taken a correctly, properly signed, and initialed. I correctly, properly signed, and				

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#### Attachment 17 - Plant Manager Approved Lists

This procedure requires three lists that shall be approved by the Plant Manager, as follows:

1. Authorized Employees – a list of all personnel authorized to serve as LOTO Authority and Tag Hanger or Tag Remover. This list shall be approved by the Plant Manager, reviewed annually and revised as needed. When assigning duties, the LOTO Authority shall ENSURE that the individuals assigned to position EIDs, place locks and tags, or perform independent verification are capable of performing the steps safely and that they are listed on the Plant Manager approved list of "Authorized Employees" (refer to 3.1.1). These qualifications are required to be included on this list:

#### **LOTO Authority**:

- Must be an NRG employee or contractor working under NRG Supervision.
- Current with annual LOTO training, including LOTO Authority Job Performance Measure (JPM) **AND meets one of the following criteria**:
  - Operator (qualified by site program), Shift Supervisor, or Operations Authority (per Conduct of Operations procedure), knowledgeable in the specific system involved.
  - Specific Area Supervisor or Lead, knowledgeable in the specific system involved e.g. Coal Yard, Scrubber, etc.)

Tag Hanger or Tag Remover (designated to position EIDs, place and remove locks and tags):

- Must be an NRG employee (or working under NRG Supervision).
- Current with annual LOTO training, including Tag Hanger/Tag Remover JPM AND meets one of the following criteria:
  - Operator (qualified by site program), Shift Supervisor, or Operations Authority, knowledgeable in the specific system involved.
  - Specific Area Supervisor or Employee, knowledgeable in the specific system involved e.g. Coal Yard, Scrubber, Generator, etc.) .
- 2. List of Sites Where Physical Independent Verification is NOT Utilized specifically, for unmanned sites or sites staffed with two or less employees, and where it is not feasible to complete a physical independent verification. This does not exclude sites from having their isolation points independently verified by an Authorized Employee; it merely offers an alternate means of verification (use of a security camera, an emailed photo, a step by step walkthrough over the phone, or other similar means to ensure that the equipment is properly isolated). The Plant Manager shall develop and approve the list of specific sites where Independent Verification is not utilized (as outlined in section 3.11.2). This list shall NOT include sites in close proximity to other sites.
- 3. Listed Locations the list of locations, and the equipment or specific jobs that fall into the "Listed Locations" category where it is not feasible to travel to the control room to lock onto a Main Lockbox. The list shall identify the qualified employee(s) authorized to be a LOTO Holder for these areas, the specific corresponding area(s) that each LOTO Holder is authorized to be a LOTO Holder, and the specific equipment or system for which the LOTO Holder may be authorized to be the LOTO Holder (as outlined in section 3.28). The Plant Manager shall develop and approve this list by signature. The Listed Locations shall also be approved by the VP Regional Operations, and the VP Safety. Any addition to the list requires re-approval of the Plant Manager, VP Regional Operations, and the VP Safety.

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LockOut / TagOut	9/28/2016

## **Version History**

Revision	Date	Action
0	03/31/2009	New Document – note original document was published as Revision: 01
1	02/07/2010	Minor formatting adjustments, document content did not change.
1	08/13/2010	Reviewed content and added Version History.
2	10/08/2014	Total re-write to implement fleet-wide procedure.
3	09/28/2016	Modifications and additions to several sections that include the following major modifications: Tag Hanger and Independent Verifier must initial tags, expanded explanation of the importance of the Independent verification steps, added requirements for the tag hanger to stop if EID's are not properly labeled and required EID's to be verified they are correct and temporarily or permanently labeled before proceeding, allows contractors to be LOTO Authority with approval and training, strengthened language for inclusion of vents and drains, added requirement for LOTO Authority to reject LOTO Request if scope of work is not adequate, added new section 3.20 addressing adding or modifying work scope to an active LOTO to include requiring a new LOTO Request Form and 2 <sup>nd</sup> LOTO Authority verification. Standardized terms throughout the document, moved the Life Critical steps section to a new stand alone section, and minor grammatical changes.

# Walnut Creek Energy Park Unplanned Temporary Closure/On-Site Contingency Plan (COM-12)

**Attachment D - Insurance Summary** 

# Walnut Creek Energy Park Insurance Summary

#### **INSURANCE STRUCTURE**

During construction, the builders risk insurance will be provided under a Kiewit placed builders all risk policy, including delay in completion a.k.a. delay in startup ("DSU"), and a marine cargo policy, including marine DSU. The policy will continue to cover each of the five units until all five reach substantial completion.

Line of Insurance Property	Construction Builders	Operations (Projected
Damage	Risk/Marine Cargo <sup>1,2</sup>	Insurance) <sup>3</sup>
All risk builders risk	\$415,639,634 Replacement	
property damage	Cost	
Earthquake sublimit	\$100,000,000	
Flood sublimit	\$100,000,000	
Named Windstorm	\$415,639,634	
Water Damage	\$100,000,000	
All risk builders risk Delay	\$100,000,000 (\$1,455,000	
in Startup	business interruption –	
	operating during	
	construction phase)	
Marine transit	\$ to be placed post closing	
Marine transit DSU	\$ to be placed post closing	
All risk property		\$405,639,634 Replacement
		Cost
Earthquake sublimit		\$100,000,000
Flood sublimit		\$100,000,000
All risk property business		\$100,000,000
interruption		
Third Party Liability		
Workers compensation	Statutory – If Exposure	Statutory – If Exposure
Employer's liability –	Not Applicable – no	\$1,000,000 - If Exposure
subject to exposure	employees	
General (Third Party)	\$2,000,000/\$2,000,000	\$1,000,000/\$1,000,000
liability – Borrower		
General Liability –	\$1,000,000/\$2,000,000	Not Applicable
Contractor		
General Liability –	Not Applicable	Industry Standard
Operator		
Automobile Liability	\$1,000,000	\$1,000,000

<b>Line of Insurance Property</b>	Construction Builders	Operations (Projected	
Damage	Risk/Marine Cargo <sup>1,2</sup>	Insurance) <sup>3</sup>	
Aircraft Liability - subject	If Exposure	Not Applicable	
to exposure			
Pollution Liability - Kiewit	\$5,000,000/\$5,000,000	\$2,000,000/\$2,000,000	
Excess Liability - Owner	\$25,000,000/\$25,000,000	\$25,000,000/\$25,000,000	
Excess Liability - Kiewit	\$25,000,000/\$25,000,000	Not Applicable	
Excess Liability - Operator	Not Applicable	Industry Practice	
Professional Liability -	\$10,000,000/\$10,000,000	Not Applicable	
Kiewit			

#### **Notes:**

- 1. The marine cargo insurance will be placed by Kiewit following financial close but prior to first major shipment of equipment.
- 2. The builders risk policy covers the interest of the EPC Contractor, Subcontractors, Suppliers, Owner and Lenders – the DSU cover is specific to the interest of Walnut Creek Energy.
- 3. The facility is still under construction; insurance for the operations phase has not been finalized and is projected at this time.