DOCKETED	
Docket Number:	08-AFC-03C
Project Title:	Marsh Landing Generating Station Compliance
TN #:	231206
Document Title:	Annual Compliance Report Part 1 of 2
Description:	2018 Annual Compliance Report, Part 1 of 2
Filer:	Scott Seipel
Organization:	NRG, Inc.
Submitter Role:	Applicant
Submission Date:	12/13/2019 10:16:39 AM
Docketed Date:	12/13/2019

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March 20, 2019

Mr. Keith Winstead
Compliance Project Manager
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

Subject: Annual Compliance Report – 2018
(COMPLIANCE-7)
Docket No. 08-AFC-03

Mr. Winstead,

The Marsh Landing Generating Station achieved Commercial Operation status on May 1, 2013. The legal name of the plant was recently changed and is now: Marsh Landing LLC. The plant is now owned by Clearway Energy Inc. and operated and maintained by NRG Energy Services.

Per the requirements of Revised Staff Assessment please find enclosed a copy of the Annual Compliance Report for the Commercial Operations period, January 1st – December 31st, 2018. This includes documents required for the following specific conditions: BIO-2, HAZ-1, HAZ-8, SOIL & WATER-5, SOIL & WATER-6, VIS-1, VIS-2, WASTE-7, and BIO-8.

This information is being submitted to comply with the requirements of the Energy Commission's Final Decision for this project.

Please let me know if you have any questions.
(925-779-6693 or Daniel.Leach@nrg.com)

Sincerely,

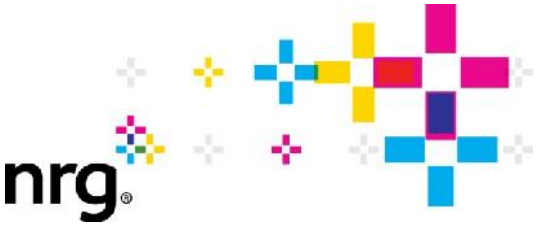
Daniel A. Leach
MLGS Compliance Manager

Enclosures:
1 Electronic copy on CD of ACR 2018

MARSH LANDING GENERATING STATION

ANNUAL COMPLIANCE REPORT

Report Period: January 1 – December 31, 2018



For Submittal to
California Energy Commission
Sacramento, California
08 – AFC – 3C

Annual Compliance Report

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Marsh Landing Generating Station

Annual Compliance Report

1.0 Current Compliance Matrix

Mirant Marsh Landing CEC Compliance Matrix

Based on CEC Final Decision 08 - AFC -03

Color Code Key: Pre-Const | Construction | Commiss. | Operations | To CEC or Agency | Approved by CEC

Sort Code	Cond. #	Description of Project Owner's Responsibilities	Verification/Action/Submittal Required by Project Owner	Timeframe	Date Due to CEC CPM	Lead Party	Date sent to CEC, CBO or agency	CEC Log # and Status	Comments	Date Submitted to GenOn	Date sent to CEC, CBO or agency2	Approved
PC-1	AQ-SC1	Designate and retain an on-site AQCMM who shall be responsible for directing and documenting compliance with conditions AQ-SC3, AQ-SC4 and AQ-SC5 for the entire project site and linear facility construction. The on-site AQCMM may delegate responsibilities to one or more AQCMM delegates.	Submit to the CPM for approval the name, resume, qualifications, and contact information for the on-site AQCMM and all AQCMM delegates. The AQCMM and all delegates must be approved by the CPM before the start of ground disturbance.	60 days prior to the start of ground disturbance	1/24/11	GenOn	9/13/2010 Submittal 001	2010-1172	Approved 9/23/2010 Resume for Stephen Erickson submitted 8/15/2012 Submittal 116		9/13/2010 Resume for Stephen Erickson submitted 8/15/2012	Approved 9/23/2010 by email (On File) from CEC: J. Caswell
PC-1	AQ-SC2	Provide, for approval, an AQCMP that details the steps to be taken and the reporting requirements necessary to ensure compliance with conditions of certification 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. The AQCMP must be approved by the CPM before the start of ground disturbance.	60 days prior to the start of ground disturbance	1/24/11	GenOn	9/21/2010 Submittal 002	2010-1220	Approved 10/06/10		9/21/10	Approved 06/10/2010 by email (On File) from CEC: J. Caswell
CONS	AQ-SC3	The AQCMM shall submit documentation to the CPM in each monthly compliance report (MCR) that demonstrates compliance with mitigation measures a. through m. for purposes of preventing all fugitive dust plumes from leaving the project site and linear facility routes. Any deviation from the following mitigation measures shall require prior CPM.	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.	Monthly	Include in MCR	GenOn					Monthly 10th Busness day of each month	Currently No noted issues with any Monthly report
CONS	AQ-SC4	The AQCMM or an AQCMM delegate shall monitor all construction activities for visible dust plumes. Observations of visible dust plumes with the potential to be transported off the project site, 200 feet beyond the centerline of the construction of linear facilities, or within 100 feet upwind of any regularly occupied structures not owned by the project owner indicate that existing mitigation measures are not providing effective mitigation. The AQCMM or delegate shall then implement the following procedures for additional mitigation measures in the event that such visible dust plumes are observed.	The AQCMP shall include a section detailing how additional mitigation measures will be accomplished within the specified time limits.	Monthly	Include in MCR	GenOn					Monthly 10th Busness day of each month	Currently No noted issues with any Monthly report
CONS	AQ-SC5	The AQCMM shall submit to the CPM, in the MCR, a construction mitigation report that demonstrates compliance with mitigation measures a. through f. for purposes of controlling diesel construction related emissions. Any deviation from the following mitigation measures shall require prior CPM notification and approval.	The project owner shall include in the MCR:(1) a summary of all actions taken to maintain compliance with this condition; (2) 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 the equipment has been properly maintained; 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.	Monthly	Include in MCR	GenOn	Jan 19, 2012 Submittal 086				Monthly 10th Busness day of each month	Currently No noted issues with any Monthly report
CONS	AQ-SC6	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 either: 1) submittal by 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 its submittal	Include in MCR	GenOn					Monthly 10th Busness day of each month	Currently No noted issues with any Monthly report
PC-2	AQ-SC7	Provide emission reductions in the form of offsets or emission reduction credits (ERCs) in the quantities of at least 78.83 tons per year (tpy) NOx, 14.23 tpy VOC, 31.57 tpy PM10, and 4.96 tpy SOx emissions. The project owner shall demonstrate that the reductions are provided in the form required by the Bay Area Air Quality Management District. The project owner shall surrender the ERCs from among Bay Area Air Quality Management District Certificate Numbers 756, 831, 863, and 918, or a modified list, as allowed by this condition. If additional ERCs are submitted, the project owner shall submit a modified list including the additional ERCs to the CPM. The project owner shall request CPM approval for any substitutions, modifications, or additions to the listed credits.	Submit to the CPM records showing that the project's offset requirements have been met prior to initiating construction. 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 the Energy Commission docket. The CPM shall maintain an updated list of approved ERCs for the project.	Prior to Initiating Construction	4/1/13	GenOn	10/13/2010 Submittal 006	2010-1361	Approved 10/29/2010	10/13/2010	10/13/2010	CEC Acceptance 11/01/2010 per email from J Caswell (On File) and Additional verifications per acceptance of section 4.0 of MCR No. 14

Mirant Marsh Landing CEC Compliance Matrix

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COMM &OPS	AQ-SC8	Submit to the CPM quarterly operation reports that include operational and emissions information as necessary to demonstrate compliance with the conditions of certification. The quarterly operation report shall specifically note or highlight incidences of noncompliance.	Submit quarterly operation reports to the CPM and APCO no later than 30 days following the end of each calendar quarter. This information shall be maintained on site for a minimum of five years and shall be provided to the CPM and District personnel upon request.	Quarterly	30 days after end of quarter	GenOn						
COMM	AQ-SC9	The facility shall be operated such that simultaneous commissioning of no more than two combustion turbines will occur without abatement of nitrogen oxide and CO emissions by its SCR system and oxidation catalyst system. Operation of a combustion turbine during commissioning without abatement shall be limited to discrete commissioning activities that can only be properly executed without the SCR or Oxidation Catalyst Systems fully operational.	submit a monthly compliance report to the CPM during the commissioning period demonstrating compliance with this condition.	Monthly	Include in MCR	KIEWIT					Monthly 10th Busness day of each month	Currently No noted issues with any Monthly report
COMM	AQ-1	Minimize emissions of carbon monoxide and nitrogen oxides from Gas Turbines to the maximum extent possible during the commissioning period.	A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQSC8).	Quarterly	30 days after end of quarter	GenOn						
COMM	AQ-2	At the earliest feasible opportunity in accordance with the recommendations of the equipment manufacturers and the construction contractor, shall tune the S-1, S-2, S-3 and S-4 Gas Turbines combustors to minimize the emissions of carbon monoxide and nitrogen oxides.	A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQSC8).	Quarterly	30 days after end of quarter	K & N						
COMM	AQ-3	At the earliest feasible opportunity in accordance with the recommendations of the equipment manufacturers and the construction contractor, install, adjust, and operate the A-1, A-3, A-5 and A-7 Oxidation Catalysts and A-2, A-4, A-6 and A-8 SCR Systems to minimize the emissions of carbon monoxide and nitrogen oxides from S-1, S-2, S-3, and S-4 Gas Turbines. (Basis: BACT, Regulation 2, Rule 2, Section 409)	A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQSC8).	Quarterly	30 days after end of quarter	K&G						
COMM	AQ-4	Submit a plan to the District Engineering Division and the CEC CPM, describing the procedures to be followed during the commissioning of the gas turbines. The plan shall include a description of each commissioning activity, the anticipated duration of each activity in hours, and the purpose of the activity. The activities described shall include, but not be limited to, the tuning of the Dry-Low-NOx combustors, the installation and operation of the required emission control systems, the installation, calibration, and testing of the CO and NOx continuous emission monitors, and any activities requiring the firing of the GT without abatement by their respective oxidation catalysts and/or SCR Systems. Do not fire any of the Gas Turbines sooner than 28 days after the District receives the commissioning plan.	Submit a commissioning plan to the CPM and APCO for approval at least four weeks prior to first firing of the gas turbine describing the procedures to be followed during the commissioning period and the anticipated duration of each commissioning activity.	Four weeks prior to first firing of GT during Commissioning	10/14/12	KIEWIT	10/17/12 Submittal 135					
COMM	AQ-5	During the commissioning period, shall demonstrate compliance with AQ-7, AQ-8, AQ-9, and AQ-10 through the use of properly operated and maintained continuous emission monitors and data recorders for the following parameters and emission concentrations:firing hours, fuel flow rates, stack gas nitrogen oxide emission concentrations, stack gas carbon monoxide emission concentrations, stack gas oxygen concentrations The monitored parameters shall be recorded at least once every 15 minutes (excluding normal calibration periods or when the monitored source is not in operation) for the Gas Turbines (S-1, S-2, S-3, and S-4). The owner/operator shall use District-approved methods to calculate heat input rates, nitrogen dioxide mass emission rates, carbon monoxide mass emission rates, and NOx and CO emission concentrations, summarized for each clock hour and each calendar day. The owner/operator shall retain records on site for at least 5 years from the date of entry and make such records available to District personnel upon request. (Basis: Regulation 2, Rule 2, Section 419)	Submit to the CPM and APCO for approval the commissioning plan as required in AQ-4.	Four weeks prior to first firing of GT during Commissioning	10/14/12	KIEWIT	10/17/12 Submittal 135					

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CONS	AQ-6	Install, calibrate, and operate the District-approved continuous monitors specified in AQ-5 prior to first firing of the Gas Turbines (S-1, S-2, S-3 and S-4). After first firing of the turbines, the owner/operator shall adjust the detection range of these continuous emission monitors as necessary to accurately measure the resulting range of CO and NOx emission concentrations. The type, specifications, and location of these monitors shall be subject to District review and approval. (Basis: Regulation 2, Rule 2, Section 419)	make the site available for inspection by representatives of the District, ARB, and the Commission upon request. A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report.	As Required	As required	KIEWIT			Reports submitted quarterly.			
COMM	AQ-7	Do not fire Gas Turbine without abatement of nitrogen oxide emissions by the corresponding SCR System and/or abatement of carbon monoxide emissions by the corresponding Oxidation Catalyst for more than 232 hours each during the commissioning period. The owner/operator shall operate the facility such that simultaneous commissioning of no more than two gas turbines will occur without abatement of nitrogen oxides and carbon monoxide by its SCR system and oxidation catalyst system. Such operation of any Gas Turbine without abatement shall be limited to discrete commissioning activities that can only be properly executed without the SCR system and/or oxidation catalyst in place. Upon completion of these activities, provide written notice to the District Engineering and Enforcement Divisions and the unused balance of the 232 firing hours without abatement shall expire.	Submit to the CPM and APCO for approval the commissioning plan as required in AQ-4. A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).	Four weeks prior to first firing of GT during Commissioning	10/14/12	KIEWIT	10/17/12 Submittal 135		Awaiting Approval Per BAAQMD			
OPS	AQ-8	Total mass emissions of nitrogen oxides, carbon monoxide, precursor organic compounds, PM10, and sulfur dioxide that are emitted by the Gas Turbines (S-1, S-2, S-3, and S-4) during the commissioning period shall accrue towards the consecutive twelve-month emission limitations specified in AQ-22.	A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQSC8).	Quarterly	30 days after end of quarter	K&G			Reports submitted quarterly.			
OPS	AQ-9	Shall not operate the Gas Turbines (S-1, S-2, S-3, and S-4) in a manner such that the pollutant emissions from each gas turbine will exceed the following limits during the commissioning period. These emission limits shall include emissions resulting from the start-up and shutdown of the Gas Turbines (S-1, S-2, S-3, S-4). NOx (as NO2) 3,063 pounds per calendar day 188 pounds per hour. CO 33,922 pounds per calendar day 2,405 pounds per hour. POC (as CH4) 2,008 pounds per calendar day. PM10 235 pounds per calendar day. SO2 149 pounds per calendar day.	A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQSC8).	Quarterly	30 days after end of quarter	K&G			Reports submitted quarterly.			
COMM	AQ-10	Within 90 days after startup of each turbine, the Owner/Operator shall conduct District and CEC approved source tests for that turbine to determine compliance with the emission limitations specified in AQ-17. The source tests shall determine NOx, CO, and POC emissions during start-up and shutdown of the gas turbines. The POC emissions shall be analyzed for methane and ethane to account for the presence of unburned natural gas. The source test shall include a minimum of three start-up and three shutdown periods. Thirty working days before the execution of the source tests, the Owner/Operator shall submit to the District and the CEC Compliance Program Manager (CPM) a detailed source test plan designed to satisfy the requirements of this Part. The District and the CEC CPM will notify the Owner/Operator of any necessary modifications to the plan within 20 working days of receipt of the plan; otherwise, the plan shall be deemed approved. The Owner/Operator shall incorporate the District and CEC CPM comments into the test plan. The Owner/Operator shall notify the District and the CEC CPM within seven (7) working days prior to the planned source testing date. The owner/operator shall submit the source test results to the District and the CEC CPM within 60 days of the source testing date. (Basis: Regulation 2, Rule 2, Section 419).	Submit to the CPM and APCO for approval the commissioning plan as required in AQ-4.	Thirty working days before the execution of the source tests	10/14/12	KIEWIT	10/17/12 CEC Submittal 135 Planned Source Testing dates. 2/25/13 CEC Submittal 151 Update of planned Source Testing dates. 6/25/13 CEC Submittal 164 Source Test Report Submitted					

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OPS	AQ-11	Fire the Gas Turbines (S-1, S-2, S-3, and S-4) exclusively on PUC-regulated natural gas with a maximum sulfur content of 1 grain per 100 standard cubic feet. To demonstrate compliance with this limit, the operator of S-1, S-2, S-3 and S-4 shall sample and analyze the gas from each supply source at least monthly to determine the sulfur content of the gas. PG&E monthly sulfur data may be used provided that such data can be demonstrated to be representative of the gas delivered to the MLGS.	The result of the natural gas fuel sulfur monitoring data and other fuel sulfur content source data shall be submitted to the District and CPM in the quarterly operation report (AQ-SC8).	Quarterly	30 days after end of quarter	GenOn			Reports submitted quarterly.			
OPS	AQ-12	Do not operate the units such that the heat input rate to each Gas Turbine (S-1, S-2, S-3, and S-4) exceeds 2,202 MMBtu (HHV) per hour.	A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report.	Quarterly	30 days after end of quarter	GenOn			Reports submitted quarterly.			
OPS	AQ-13	Do not operate the units such that the heat input rate to each Gas Turbine (S-1, S-2, S-3, and S-4) exceeds 52,848 MMBtu (HHV) per day.	A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report.	Quarterly	30 days after end of quarter	GenOn			Reports submitted quarterly.			
OPS	AQ-14	Do not operate the units such that the combined cumulative heat input rate for the Gas Turbines (S-1, S-2, S-3, and S-4) exceeds 13,994,976 MMBtu (HHV) per year.	A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report.	Quarterly	30 days after end of quarter	GenOn			Reports submitted quarterly.			
OPS	AQ-15	Do not operate S-1, S-2, S-3, and S-4 such that the Combined hours for all four units exceeds 7,008 hours per year (excluding operations necessary for maintenance, tuning, and testing).	A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQSC8).	Quarterly	30 days after end of quarter	GenOn			Reports submitted quarterly.			
OPS	AQ-16	Ensure that the each Gas Turbine (S-1, S-2, S-3,S-4) is abated by the properly operated and properly maintained Selective Catalytic Reduction (SCR) System A-2, A-4, A-6 or A-8 and Oxidation Catalyst System A-1, A-3, A-5, or A-7 whenever fuel is combusted at those sources and the corresponding SCR catalyst bed (A-2, A-4, A-6 or A-8) has reached minimum operating temperature.	Make the site available for inspection by representatives of the District, ARB, and the Commission upon request. A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8).	As Required	As required	GenOn			Reports submitted quarterly.			
OPS	AQ-17	ensure that the Gas Turbines (S-1, S-2, S-3, S-4) comply with requirements (a) through (i). Requirements (a) through (f) do not apply during a gas turbine start-up, combustor tuning operation or shutdown.	A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report.	Quarterly	30 days after end of quarter	GenOn			Reports submitted quarterly.			
OPS	AQ-18	Ensure that the regulated air pollutant mass emission rates from each of the Gas Turbines (S-1, S-2, S-3, and S-4) during a start-up or shut down does not exceed the limits established below. Startups shall not exceed 30 minutes. Shutdowns shall not exceed 15 minutes. NOx (as NO2),CO,POC(as CH4) of Maximum Emissions Per Startup: 36.4 ,216.2 , 11.9 Maximum Emissions During Hour Containing a Startup:45.1, 541.3, 28.5 Maximum Emissions Per Shutdown: 15.1, 111.5, 5.4	A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQSC8).	Quarterly	30 days after end of quarter	GenOn			Reports submitted quarterly.			
OPS	AQ-19	Do not perform combustor tuning on each Gas Turbine (S-1, S-2, S-3, or S-4) more than twice every consecutive 12 month period. Each tuning event shall not exceed eight hours. Combustor tuning shall only be performed on one gas turbine per day. The owner/operator shall notify the District no later than seven days prior to combustor tuning activity. The emissions during combustor tuning from each gas turbine shall not exceed the limits established below.NOx (as NO2):80, CO:450, POC (as CH4):30	notify both the District and CPM at least 7 days prior to the combustor tuning. A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQ-SC8) This does not include Initial Construction Tunings	7 days prior to combustor tuning	11/1/12	GenOn			Reporting on as needed basis.			
OPS	AQ-20	Do not allow total combined emissions from the Gas Turbines (S-1, S-2, S-3, and S-4), including emissions generated during gas turbine start-ups, and shutdowns to exceed the following limits during any calendar day (except for days during which combustor tuning events occur: (a) 2,468 pounds of NOx (as NO2) per day (Basis: Cumulative Increase) (b) 4,858 pounds of CO per day (Basis: Cumulative Increase) (c) 476 pounds of POC (as CH4) per day (Basis: Cumulative Increase) (d) 864 pounds of PM10 per day (Basis: Cumulative Increase) (e) 596 pounds of SO2 per day (Basis: Cumulative Increase)	A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQSC8).	Quarterly	30 days after end of quarter	GenOn			Reports submitted quarterly.			

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OPS	AQ-21	Do not allow cumulative combined emissions from the Gas Turbines (S-1, S-2, S-3, and S-4), including emissions generated during gas turbine start-ups, combustor tuning, shutdowns, and malfunctions to exceed the following limits during any consecutive twelve-month period: (a) 2,941 pounds of NOx (as NO2) per day (Basis: Cumulative Increase) (b) 8,378 pounds of CO per day (Basis: Cumulative Increase)(c) 693 pounds of POC (as CH4) per day (Basis: Cumulative Increase)(d) 864 pounds of PM10 per day (Basis: Cumulative Increase)(e) 596 pounds of SO2 per day (Basis: Cumulative Increase)	A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQSC8).	Quarterly	30 days after end of quarter	GenOn			Reports submitted quarterly.			
OPS	AQ-22	not allow cumulative combined emissions from the Gas Turbines (S-1, S-2, S-3, and S-4), including emissions generated during gas turbine start-ups, combustor tuning, shutdowns, and malfunctions to exceed the following limits during any consecutive twelve-month period: (a) 78.57 tons of NOx (as NO2) per year (Basis: Offsets)(b) 138.57 tons of CO per year (Basis: Cumulative Increase)(c) 14.21 tons of POC (as CH4) per year (Basis: Offsets)(d) 31.54 tons of PM10 per year (Basis: Cumulative Increase)(e) 4.94 tons of SO2 per year (Basis: Cumulative Increase)	A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQSC8).	Quarterly	30 days after end of quarter	GenOn			Reports submitted quarterly.			
OPS	AQ-23a	Do not allow the maximum projected annual toxic air contaminant emissions (per AQ-26) from the Gas Turbines combined to exceed the following limits: formaldehyde 7,785 pounds per year, benzene 202 pounds per year, Specified polycyclic aromatic hydrocarbons (PAHs) 1.98 pounds per year unless the following requirement is satisfied: (1)Perform a health risk assessment to determine the total facility risk using the emission rates determined by source testing and the most current Bay Area Air Quality Management District approved procedures and unit risk factors in effect at the time of the analysis. Submit the risk analysis to the District and the CEC CPM . May request that the District and the CEC CPM revise the carcinogenic compound emission limits specified above. Demonstrates to the satisfaction of the APCO that these revised emission limits will not result in a significant cancer risk, the District and the CEC CPM may, at their discretion, adjust the carcinogenic compound emission limits listed above.	Source test results obtained through compliance with AQ-26 and AQ- 30 shall confirm the toxic air contaminant emission rates or submit an updated health risk assessment.	With/in 60 days of initial source testing and Annually.	4/1/11	GenOn			Iniitial Source Test submitted 6/18/13. Annual testing required.			
OPS	AQ-23b	Perform a health risk assessment to determine the total facility risk using the emission rates determined by source testing and the most current Bay Area Air Quality Management District approved procedures and unit risk factors in effect at the time of the analysis.	Submit the risk analysis to the District and the CEC CPM . May request that the District and the CEC CPM revise the carcinogenic compound emission limits specified above. Demonstrates to the satisfaction of the APCO that these revised emission limits will not result in a significant cancer risk, the District and the CEC CPM may, at their discretion, adjust the carcinogenic compound emission limits listed above.	Every 24 months submit with/in 60days of test	As required	GenOn						
OPS	AQ-24	Demonstrate compliance with AQ-12 through AQ-15, AQ-17(a) through AQ-17(e), AQ-18 (NOx, and CO limits), AQ-19 (NOx and CO limits), AQ-20(a), AQ-20(b), AQ-21(a), AQ-21(b), AQ-22(a) and AQ- 22(b) by using properly operated and maintained continuous monitors (during all hours of operation including gas turbine start-up, combustor tuning, and shut down periods). The owner/operator shall monitor for all of the following a. through k.	Make the site available for inspection by representatives of the District, ARB and the Commission to verify the continuous monitoring and recordkeeping system is properly installed and operational.	As Required	As required	GenOn						

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OPS	AQ-25	Demonstrate compliance with AQ-17(f), AQ-17(g), AQ-17(h), AQ-17(i), AQ-20(c), AQ-20(d), AQ-20(e), AQ-21(c), AQ-21(d), AQ-21(e), AQ-22(c), AQ-22(d), AQ-22(e), the owner/operator shall calculate and record on a daily basis, the precursor organic compound (POC) mass emissions, fine particulate matter (PM10) mass emissions (including condensable particulate matter), and sulfur dioxide (SO2) mass emissions from each power train. The owner/operator shall use the actual heat input rates measured pursuant to AQ-24, actual Gas Turbine start-up times, actual Gas Turbine shutdown times, and CEC and District-approved emission factors developed pursuant to source testing under AQ-28 to calculate these emissions. The owner/operator shall present the calculated emissions in the following format:(a) For each calendar day, POC, PM10, and SO2 emissions, summarized for each power train (Gas Turbine) and S-1, S-2, S-3, and S-4 combined. (b) on a monthly basis, the cumulative total POC, PM10, and SO2 mass emissions, for each year (12-month rolling average) for S-1, S-2, S-3, and S-4 combined.(Basis: Offsets, Cumulative Increase)	Make the site available for inspection by representatives of the District, ARB and the Commission to verify the calculation and record keeping system is properly installed and operational.	As Required	As required	GenOn						
OPS	AQ-26	Demonstrate compliance with AQ-23, the owner/operator shall calculate and record on an annual basis the maximum projected annual emissions of: Formaldehyde, Benzene, and Specified PAHs. The owner/operator shall calculate the maximum projected annual emissions using the maximum annual heat input rate of 13,994,976 MMBtu/year for S-1, S-2, S-3, and S-4 combined and the highest emission factor (pounds of pollutant per MMBtu of heat input) determined by the most recent of any source test of the S-1, S-2, S-3, or S-4 Gas Turbines. If the highest emission factor for a given pollutant occurs during minimum-load turbine operation, a reduced annual heat input rate may be utilized to calculate the maximum projected annual emissions to reflect the reduced heat input rates during gas turbine start-up and minimum load operation. The reduced annual heat input rate shall be subject to District review and approval.	Make the site available for inspection by representatives of the District, ARB and the Commission to verify the calculation and recordkeeping system is properly installed and operational.	As Required	As required	GenOn						
COMM	AQ-27a	Conduct a District-approved source test on each corresponding exhaust pointS to determine the corrected ammonia (NH3) emission concentration to determine compliance with AQ-17(e). The source test shall be conducted over the expected operating range of the turbine (including, but not limited to, minimum and full load modes) to establish the range of ammonia injection rates necessary to achieve NOx emission reductions while maintaining ammonia slip levels.	Submit the results and field data collected during source tests to the District and CPM within 60 days of testing and according to a preapproved protocol (AQ-29).	Within 60 days of intial source testing	4/1/11	KIEWIT	6/25/13 CEC Submittal 164 Source Test Report					
OPS	AQ-27b	Repeat the source testing(AQ-27a) on an annual basis thereafter. Ongoing compliance with AQ-17(e) shall be demonstrated through calculations of corrected ammonia concentrations based upon the source test correlation and continuous records of ammonia injection rate.	Testing for steady-state emissions shall be conducted upon initial operation and at least once every 12 months.	With in 60 days of test every 12 months	As required	GenOn						

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OPS	AQ-28a	Testing for steady-state emissions shall be conducted upon initial operation and at least once every 12 months.	Submit the results and field data collected during source tests to the District and CPM within 60 days of testing	Annually	Include in ACR	GenOn						
COMM &OPS	AQ-28b	conduct a District-approved source test on each corresponding exhaust point P-1, P-2, P-3 and P-4 while each Gas Turbine is operating at maximum load to determine compliance with AQ-17(a), AQ-17(b), AQ-17(c), AQ-17(d), AQ-17(f), AQ-17(g), AQ- 17(h), AQ-17(i), and while each Gas Turbine is operating at minimum load to determine compliance with AQ-17(c), and AQ-17(d) and to verify the accuracy of the continuous emission monitors required in AQ-24. The owner/operator shall test for (as a minimum): water content, stack gas flow rate, oxygen concentration, precursor organic compound concentration and mass emissions, nitrogen oxide concentration and mass emissions (as NO2), carbon monoxide concentration and mass emissions, sulfur dioxide concentration and mass emissions, methane, ethane, and total particulate matter emissions including condensable particulate matter. The owner/operator shall submit the source test results to the District and the CEC CPM within 60 days of conducting the tests.	Submit the results and field data collected during source tests to the District and CPM within 60 days of testing and according to a preapproved protocol (AQ-29).	Upon initial operation / annually	4/1/11	KIEWIT						
COMM &OPS	AQ-29	Obtain approval for all source test procedures from the District's Source Test Section and the CEC CPM prior to conducting any tests. Comply with all applicable testing requirements for continuous emission monitors as specified in Volume V of the District's Manual of Procedures. Notify the District's Source Test Section and the CEC CPM in writing of the source test protocols and projected test dates at least 7 days prior to the testing date(s).	Submit the proposed source test plan or protocol for the source tests seven days prior to the proposed source test date to both the District and CPM for approval. The project owner shall notify the District and CPM no later than seven days prior to the proposed source test date and time.	No later than seven days prior to the proposed source test date and time	1/24/11	GenOn	2/25/13 CEC Submittal 151 Update of planned Source Testing dates.					
COMM	AQ-30a	conduct a District-approved source test on one of the following exhaust points P-1, P-2, P-3 or P-4 while the Gas Turbine is operating at maximum allowable operating rates to demonstrate compliance with AQ-23. The owner/operator shall also test the gas turbine while it is operating at minimum load. If three consecutive biennial source tests demonstrate that the annual emission rates calculated pursuant to AQ-26 for any of the compounds listed below are less than the BAAQMD trigger levels, pursuant to Regulation 2, Rule 5, shown, then the owner/operator may discontinue future testing for that pollutant: Benzene ≤ 3.8 pounds/year and 2.9 pounds/hour, Formaldehyde < 18 pounds/year and 0.12 pounds/hour, Specified PAHs ≤ 0.0069 pounds/year	The results and field data collected during source tests shall be submitted to the District and CPM within 60 days of testing and according to a preapproved protocol (AQ-29).	Within 60 days of initial source testing	4/1/11	KIEWIT	6/25/13 Submittal 164 Source Test Report Submitted					
OPS	AQ-30b	Testing for toxic air contaminant emissions shall be conducted upon initial operation and at least once every 24 months.	The results and field data collected during source tests shall be submitted to the District and CPM within 60 days of testing	with in 60 days of test every 24 months thereafter	As required	GenOn	6/25/13 Submittal 164 Source Test Report Submitted					

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OPS	AQ-31	Calculate the sulfuric acid mist (SAM) emission rate using the total heat input for the sources and the highest results of any source testing conducted pursuant to AQ-32. If this SAM mass emission limit of AQ- 33 is exceeded, the owner/operator must utilize air dispersion modeling to determine the impact (in µg/m3) of the sulfuric acid mist emissions pursuant to Regulation 2, Rule 2, Section 306.	Make the site available for inspection by representatives of the District, ARB and the Commission to verify the calculation and recordkeeping system is properly installed and operational. The quarterly operation report (AQ-SC8) shall include a determination of the impact if triggered by this condition.	As Required & Quarterly	30 days after end of quarter	GenOn			Reports submitted quarterly.			
COMM	AQ-32a	Conduct a District-approved source test on two of the four exhaust points while each gas turbine is operating at maximum heat input rates to demonstrate compliance with the SAM emission rates specified in AQ-33. Test for (as a minimum) SO2, SO3, and H2SO4. Submit the source test results to the District and the CEC CPM within 60 days of conducting the tests.	Submit the results and field data collected during source tests to the District and CPM within 60 days of testing and according to a preapproved protocol (AQ-29).	Within 60 days of initial source testing and	4/1/11	KIEWIT	6/25/13 Submittal 164 Source Test Report Submitted					
OPS	AQ-32b	Testing for steady-state emissions shall be conducted upon initial operation and at least once every 12 months	Submit the results and field data collected during source tests to the District and CPM within 60 days of testing and according to a preapproved protocol (AQ-29).	with in 60 days of test every 12 months thereafter	As required	GenOn	6/25/13 Submittal 164 Source Test Report Submitted					
OPS	AQ-33	Do not allow sulfuric acid emissions (SAM) from stacks combined to exceed seven tons in any consecutive 12 month period	A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report (AQSC8).	Quarterly	30 days after end of quarter	GenOn			Reports submitted quarterly.			
CONS	AQ-34	Ensure that the stack height of emission points are each at least 165 feet above grade level at the stack base	Make the site available for inspection by representatives of the District, ARB and the Commission	As Required	As required	GenOn			Kiewit to provide per email from jason Lockwood 10.19.12			
OPS	AQ-35	Submit all reports (including, but not limited to monthly CEM reports, monitor breakdown reports, emission excess reports, equipment breakdown reports, etc.) as required by District Rules or Regulations and in accordance with all procedures and time limits specified in the Rule, Regulation, Manual of Procedures, or Enforcement Division Policies & Procedures Manual	Ensure that notifications and reports, including the quarterly operation report (AQ-SC8), are prepared and submitted in compliance with this condition	As Required	As required	GenOn						
OPS	AQ-36	Maintain all records and reports on site for a minimum of five years. These records shall include but are not limited to: continuous monitoring records (firing hours, fuel flows, emission rates, monitor excesses, breakdowns, etc.), source test and analytical records, natural gas sulfur content analysis results, emission calculation records, records of plant upsets and related incidents. The owner/operator shall make all records and reports available to District and the CEC CPM staff upon request.	Make the site available for inspection by representatives of the District, ARB and the Commission.	As Required	As required	GenOn						
OPS	AQ-37	notify the District and the CEC CPM of any violations of these permit conditions. Notification shall be submitted in a timely manner, in accordance with all applicable District Rules, Regulations, and the Manual of Procedures. Notwithstanding the notification and reporting requirements given in any District Rule, Regulation, or the Manual of Procedures, the owner/operator shall submit written notification (facsimile is acceptable) to the Enforcement Division within 96 hours of the violation of any permit condition.	A summary of significant operation and maintenance events and monitoring records required shall be included in the quarterly operation report.	Quarterly	30 days after end of quarter	GenOn			Reports submitted quarterly.			

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CONS	AQ-38	Provide adequate stack sampling ports and platforms to enable the performance of source testing. The location and configuration of the stack sampling ports shall comply with the District Manual of Procedures, Volume IV, Source Test Policy and Procedures, and shall be subject to BAAQMD review and approval, except that the facility shall provide four sampling ports that are at least 6 inches in diameter in the same plane of each gas turbine stack.	The project owner shall make the site available for inspection by representatives of the District, ARB and the Commission.	As Required	As required	GenOn			Kiewit to provide per email from jason Lockwood 10.19.12			
CONS	AQ-39	Contact the BAAQMD Technical Services Division regarding requirements for the continuous emission monitors, sampling ports, platforms, and source tests required by AQ-10, AQ-27, AQ-28, AQ-30 and AQ-32. Conduct all source testing and monitoring in accordance with the District approved procedures.	Contact the District for specifications on monitors, ports, platforms and source tests and shall submit verification of this contact to the District and CPM with the initial source test protocol	With in 180 days of Issuance of the Authority to Construct	9/25/11	KIEWIT	9/13/2011 Submittal 061 Approved by CEC 10/7/2011 Additional submittal 10/11/2011 Submittal 068		Approval received from BAAQMD bt letter from Ken Kunaniec Air Quaklity Engineering Manager Dated 4/21/2011			10/11/2012 Submittal of BAAMD Letter only . No CEC Approval required.
OPS	AQ-40	Ensure that the MLGS complies with the continuous emission monitoring requirements of 40 CFR Part 75	Submit to the CPM and District the results of audits of the monitoring system demonstrating compliance with this condition as part of the quarterly operation report.	Quarterly	30 days after end of quarter	GenOn			Kiewit to provide per email from jason Lockwood 10.19.12			
OPS	AQ-41	The project owner shall not exceed 50 hours per year per engine for reliability related testing on the diesel emergency generator and diesel fire pump engines. (Basis: Title 17, California Code of Regulations, Section 93115, ATCM for Stationary CI Engines)	The project owner shall verify compliance with this Condition of Certification in each quarterly report required by COC AQ-SC8.	Quarterly	30 days after end of quarter	GenOn			AQ-41 added with petition to amend approved 11/17/2014.			
OPS	AQ-42	The project owner shall operate each emergency standby engine only for the following purposes: to mitgate emergency conditions, for emission testing, or for reliability related testing on the diesel emergency generator and diesel fire pump engines. (Basis: Title 17, California Code of Regulations, Section 93115, ATCM for Stationary CI Engines)	The project owner shall verify compliance with this Condition of Certification in each quarterly report required by COC AQ-SC8.	Quarterly	30 days after end of quarter	GenOn			AQ-42 added with petition to amend approved 11/17/2014.			
OPS	AQ-43	The project owner shall operate each emergency standby engine only when a non-resettable totalizing meter (with a minimum display capability of 9,999 hours) that measures the hours of operation for the engine is installed, operated and properly maintained. (Basis: Title 17, California Code of Regulations, Section 93115, ATCM for Stationary CI Engines)	The project owner shall make the site available for inspection by representatives of the District, ARB and the Commission.	As Required	As Required	GenOn			AQ-43 added with petition to amend approved 11/17/2014.			
OPS	AQ-44	Records: The project owner shall maintain the following monthly record in a District-approved log for at least 36 months from the date of entry (60 months if the facility has been issued a Titile v Major Facility Review Permit or a Synthetic Minor Operating Permit). Log entries shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff and CPM upon request. a) Hours of operation for reliability testing. b) Hours of operation for emissioin testng. c) Hours of operation for emergencies. d) For each emergency, the nature of the emergency condition. e) Fuel usage for each engine(s). (Basis: Title 17, California Code of Regulations, Section 93115, ATCM for Stationary CI Engines)	The project owner shall make the site and records available for inspection by representatives of the District, ARB and the Commission.	As Required	As Required	GenOn			AQ-44 added with petition to amend approved 11/17/2014.			
OPS	AQ-45	If the emergency standby engine is located on school grounds or within 500 feet of any school ground, the following requirements shall apply. MLGS is NOT within 500 feet of any school grounds.	The project owner shall make the site and records available for inspection by representatives of the District, ARB and the Commission.	As Required	As Required	GenOn			AQ-45 added with petition to amend approved 11/17/2014.			

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PC-1	BIO-1	Assign a Designated Biologist to the project. The DB must meet the specified qualifications. No site or related facility activities shall commence until an approved Designated Biologist is available to be on site. Adhere to condition specification if the DB needs to be replaced	Submit the resume of the proposed DB, with at least 3 references and contact information, to the (CPM) for approval.	At least 90 days prior to the start of any site (or related facilities) mobilization	11/17/10	GenOn	9/21/2010 Submission 002 Submission 006 &012&020 2/2/2012 Submittal 088	2010-1221 Returned 10/6/2010	Approved 10/20/2010 Addntl resumes submitted 2/2/2012 Approved addntl monitors 2/24/12		9/21/2010	CEC approval per CEC Blue sheet report dated 10-06-10 (on file) Additional Verifications per implied acceptance of MCR No.2 & MCR No. 14 & MCR No.18
CONS	BIO-2	Ensure that the DB performs the specified 1. through 9. of the condition during any site (or related facilities) mobilization, ground disturbance, grading, construction, operation, and closure activities. The DB may be assisted by the approved Biological Monitor(s), but remains the contact for the project owner and CPM.	Designated Biologist must maintain written records of the tasks described in condition and provide summaries for inclusion in the MCR.	Monthly	Include in MCR	BIOLOGIST					Monthly 10th Busness day of each month	Currently No noted issues with any Monthly report
CONS	BIO-3	Construction/Operation Manager shall act on the advice of the DB to ensure conformance with the biological resources Conditions of Certification. If required by the DB, Construction/ Operation Manager shall halt all activities in areas specified by the DB. The Designated Biologist shall follow the process 1. through 3 in the condition if construction is halted	Designated Biologist must notify the CPM immediately of any non-compliance activity or halt of any site mobilization, ground disturbance, grading, construction, and ops activities.	As Required	As required	BIOLOGIST						
PC-1	BIO-4a	Develop and implement a CPM-approved Worker Environmental Awareness Program (WEAP) in which each of its employees, as well as employees of contractors and subcontractors who work on the project site or any related facilities during site mobilization, ground disturbance, grading, construction, operation, and closure are informed about sensitive biological resources associated with the project. The WEAP must have the specified 1. through 6. of the condition.	Provide to the CPM the proposed WEAP and all supporting written materials and electronic media prepared or reviewed by the DB and a resume of the person(s) administering the program.	60 days prior to the start of any site (or related facilities) mobilization	12/17/10	BIOLOGIST	10/26/2010 Submittal 009 Resubmit WEAP Handout 12/21/2010 Submittal 023 Submittal 029 Submittal 030 1/26/2011	2010-1490 2010-1790 12/3/2010	Additional Information Submitted 12/3/2010 WEAP handbook revised 1/24/2011 Submitted WEAP training video 1/26/2011 Approved (No Date Given)		10/26/10	2/4/2011 Verified MCR No.5 2/11/2011
CONS	BIO-4b	Report the number of persons who have completed the training in the prior month and a running total of all persons who have completed the training to date.	Include a running total in MCR.	Monthly	Include in MCR	KIEWIT			Current as of MCR 24		Monthly 10th Busness day of each month	Currently No noted issues with any Monthly report
PC-1	BIO-4c	Deliver copies of final CPM approved WEAP materials to site.	Submit two copies of the CPM approved materials.	At least 10 days prior to site or related facilities mobilization	2/5/11	BIOLOGIST	1-28-11 Submittal 030 Submittal 032	2010-1490	Additional Information Submitted 12/3/2010 Approved 1/11/2011 Additional copies sent per request of Ann Crisp 1/28/2011		10/26/2010	1/11/2011 Delivery to site Verified by Project delivery records submittal to CEC no approval required
OPS	BIO-4d	Keep signed WEAP statements in project files.	During project operation, signed statements for active project operational personnel shall be kept on file for six months following the termination of an individual's employment.	As required	As required	GenOn						Verified Monthly in MCR's in sections 2.05
PC-1	BIO-5	Prepare the proposed BRMIMP (see BIO-6 for detailed requirements of the BRMIMP).	Submit two copies of the BRMIMP to the CEC CPM for review and approval and to USFWS/CDFG for review and comment	At least 60 days prior to site or related facilities mobilization	12/17/10	BIOLOGIST	10/13/2010 Submittal 006 Resub 11/18/2010 Submittal 014 & Submittal 020 Submittal 030	21010-1362 11/3/10 2010-1679 11/18/2010	Additional Information Submitted 12/3/2010 Additional copy sent per request of Ann Crisp 1/28/2011 Approved (No Date Given)		10/13/10	2/4/2011 Verified MCR No.5 2/11/2011

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CONS	BIO-5b	Revise or supplement the BRMIMP to reflect any BIO permit conditions received after the original BRMIMP is accepted.	Submit any bio permits not yet received when the BRMIMP is first submitted to the CPM and HTAC	Within 5 days of receipt	As required	BIOLOGIST	Submittal 020 Submittal 030					Verified Monthly in MCR's in sections 2.04 and 2.06
CONS	BIO-5c	Any changes to the approved BRMIMP must also be approved by the CPM and submitted to the HTAC to ensure no conflicts exist.	Notify the CPM before implementing any modifications to the approved BRMIMP	Within 5 days	As required	BIOLOGIST						Verified Monthly in MCR's in sections 2.04 and 2.06
CONS	BIO-5d	Implementation of BRMIMP measures will be reported in the MCR by the DB.	Provide report for inclusion in MCR.	Monthly	Include in MCR	BIOLOGIST					Monthly 10th Busness day of each month	Currently No noted issues with any Monthly report
CONS	BIO-5e	Prepare a written construction closure report identifying which items of the BRMIMP have been completed, a summary of all modifications to mitigation measures made during the project's site mobilization, ground disturbance, grading, and construction phases, and which mitigation and monitoring items are still outstanding.	Provide construction closure report to the CPM for review and approval.	Within 30 days after completion of construction	1/28/12	BIOLOGIST			Submittal #172		8/14/2013	
CONS	BIO-6a	Implement measures set forth in condition in a manner to avoid or minimize impacts to the local biological resources.	Provide report for inclusion in MCR.	Monthly	Include in MCR	BIOLOGIST					Monthly 10th Busness day of each month	Currently No noted issues with any Monthly report
CONS	BIO-6b	Submit a written construction termination report identifying how bio mitigation measures have been completed.	Provide construction termination report to the CPM for review and approval. Provide additional copies to the CDFG and USFWS.	Within 30 days after completion of construction	1/28/12	BIOLOGIST			Submittal #172		8/14/2013	
PC-2	BIO-7	Conduct migratory bird pre-construction nest surveys as required by condition. If active nests are detected during the survey, the report shall include a map or aerial photo identifying the location of the nest and shall depict the boundaries of the no-disturbance buffer zone around the nest.	Provide the CPM a letter-report describing the findings of the pre-construction nest surveys, including the time, date, and duration of the survey; identity and qualifications of the surveyor(s); and a list of species observed. Additional copies shall be provided to CDFG.	At least 10 days prior to site or related facilities mobilization	2/5/11	BIOLOGIST	3/8/2011 Submission 038 3/13/2012 Submission 041 5/21/2013 Submittal 105 7/13/12 Submittal 112		Approved, but ongoing review required. Request to remove hawk nest submitted 3/13/2012	3/8/2011	3/8/2011	3/28/2011
OPS	BIO-8	Provide an annual Payment to Friends of San Pablo Bay. The First Annual Payment shall be at least equal to $2,693.00 + $20,000 payment of good faith	Provide written verification to the CPM, USFWS, and CDFG that first annual payment was made. Thereafter within 30 days of the each commencement anniversary date provide written verification of payment to parties above	30 days after the start of project operation	1/22/12	NRG	9/10/12 Submittal 124 Submittal 138			9/10/2012		Proof of payment submitted 9/10/2012 - No acceptance is required Email verification to C stora on 9/18/12
OPS	BIO-8 2013	Provide an annual Payment to Friends of San Pablo Bay. The First Annual Payment shall be at least equal to $2,693.00 + $20,000 payment of good faith	Provide written verification to the CPM, USFWS, and CDFG that first annual payment was made. Thereafter within 30 days of the each commencement anniversary date provide written verification of payment to parties above	30 days after the COD anniversary	1/22/12	NRG						Proof of payment submitted 5/29/2014 - via Email to C stora on 7/15/13.

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OPS	BIO-8 2014	Provide an annual Payment to Friends of San Pablo Bay. The First Annual Payment shall be at least equal to $2,693.00 + $20,000 payment of good faith	Provide written verification to the CPM, USFWS, and CDFG that first annual payment was made. Thereafter within 30 days of the each commencement anniversary date provide written verification of payment to parties above	30 days after the COD anniversary	5/31/14	NRG						Proof of payment submitted 5/30/2014 - via Email to C Remy-Obad on 9/16/16.
OPS	BIO-8 2015	Provide an annual Payment to Friends of San Pablo Bay. The First Annual Payment shall be at least equal to $2,693.00 + $20,000 payment of good faith	Provide written verification to the CPM, USFWS, and CDFG that first annual payment was made. Thereafter within 30 days of the each commencement anniversary date provide written verification of payment to parties above	30 days after the COD anniversary	5/31/15	NRG						Proof of payment submitted 5/29/2015 - via Email to C Remy-Obad on 9/16/16.
OPS	BIO-8 2016	Provide an annual Payment to Friends of San Pablo Bay. The First Annual Payment shall be at least equal to $3,036 + $20,000 payment of good faith	Provide written verification to the CPM, USFWS, and CDFG that first annual payment was made. Thereafter within 30 days of the each commencement anniversary date provide written verification of payment to parties above	30 days after the COD anniversary	5/31/16	NRG						Proof of payment submitted 5/31/2016 - via Email to C Remy-Obad on 8/11/16.
OPS	BIO-8 2017	Provide an annual Payment to Friends of San Pablo Bay. The First Annual Payment shall be at least equal to $3115 + $20,000 payment of good faith	Provide written verification to the CPM, USFWS, and CDFG that first annual payment was made. Thereafter within 30 days of the each commencement anniversary date provide written verification of payment to parties above	30 days after the COD anniversary	5/31/17	NRG						
OPS	BIO-8 2018	Provide an annual Payment to Friends of San Pablo Bay. The First Annual Payment shall be at least equal to $3,218 + $20,000 payment of good faith	Provide written verification to the CPM, USFWS, and CDFG that first annual payment was made. Thereafter within 30 days of the each commencement anniversary date provide written verification of payment to parties above	30 days after the COD anniversary	5/31/18	NRG						
OPS	BIO-8 2019	Provide an annual Payment to Friends of San Pablo Bay. The First Annual Payment shall be at least equal to $2,693.00 (inflation adjusted)+ $20,000 payment of good faith	Provide written verification to the CPM, USFWS, and CDFG that first annual payment was made. Thereafter within 30 days of the each commencement anniversary date provide written verification of payment to parties above	30 days after the COD anniversary	5/31/19	NRG						
PC-2	CIV-1a	Submit design of the proposed drainage structures and the grading plan.	Submit documents to the CBO for review and approval.	At least 30 days prior to the start of site grading	2/23/11	KIEWIT	2/19/2011 to CEC and CBO Submittal 37		CBO comments 3/10/11 Approved 3/29/2011	2/19/2011	To the CBO 2/18/11	3/29/2011 Verified MCR No.7 4/16/2011
PC-2	CIV-1b	Submit the erosion and sedimentation control plan.	Submit documents to the CBO for review and approval.	At least 30 days prior to the start of site grading	2/23/11	KIEWIT	2/19/2011 to CEC and CBO Submittal 37		Approved 3/28/2011	2/19/2011	To the CBO 2/18/11	3/28/2011 Verified MCR No.7 4/16/2011
PC-2	CIV-1c	Submit the storm water pollution prevention plan (SWPPP).	Submit documents to the CBO for review and approval.	At least 30 days prior to the start of site grading	3/20/11	KIEWIT	2/19/2011 to CEC and CBO Submittal 37		CBO comments 3/10/11 Approved 3/28/2011	2/19/2011	To the CBO 3/2/11	3/28/2011 Verified MCR No.7 4/16/2011

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PC-2	CIV-1d	Submit related calculations and specifications, signed and stamped by the responsible civil engineer.	Submit documents to the CBO for review and approval.	At least 30 days prior to the start of site grading	2/23/11	KIEWIT	2/19/2011 to CEC and CBO Submittal 37		CBO comments 3/10/11 Approved 3/28/2011	2/19/2011	To the CBO 2/21/11	3/28/2011 Verified MCR No.7 4/16/2011
PC-2	CIV-1e	Submit the soils, geotechnical, or foundation investigations reports required by the 2007 CBC.	Submit documents to the CBO for review and approval.	At least 30 days prior to the start of site grading	2/23/11	KIEWIT	2/19/2011 to CEC and CBO Submittal 037 Submittal 039		CBO comments 3/10/11 Approved 3/28/2011	2/19/2011	To the CBO 2/18/11	3/28/2011 Verified MCR No.7 4/16/2011
CONS	CIV-2	RE shall stop all earthwork and construction in the affected areas when the responsible soils, geotechnical, or civil engineer experienced and knowledgeable in the practice of soils engineering identifies unforeseen adverse soil or geologic conditions. Submit modified plans, specifications and calculations to the CBO based on these new conditions. Obtain approval from the CBO before resuming earthwork and construction in affected area.	Notify the CPM within 24 hours when earthwork and construction are stopped as a result of unforeseen adverse geological conditions. Within 24 hours of the CBO's approval to resume earthwork and construction in the affected areas, provide to the CPM a copy of the CBO's approval.	Within 24 hours of construction halt due to geologic conditions	As required	KIEWIT						
CONS	CIV-3	Perform inspections in accordance with this condition (see codes referenced). If work is not being performed in accordance with approved plans, the discrepancies shall be reported immediately to the RE, CBO and CPM. EPC must prepare a written report detailing all discrepancies, non-compliance items, and proposed corrective action to the CBO/CPM.	RE shall transport to the CBO and CPM a NCR and the proposed corrective action for review and approval. Within 5 days of resolution, EPC must submit details of correction action to the CBO and CPM.	Within 5 days of discovery of any discrepancies	As required	KIEWIT	9/2/2011 Submittal 059 Submittal 060 9/13/2011 Submittal 061 9/23/2011 Submittal 063 10/14/2011 Submittal 070 10/17/2011 Submittal 071 10/24/2011 Submittal 073 2/10/2012 Submittal 089a 2/17/12 Submittal 092		9/2/2011 Submitted NCT-001, 9/13/2011 Submitted NCR-2,3,4 9/23/2011 Submitted NCR-5 Submitted additional information for NCR 3&4 10/14/2011 Submitted additional information for NCR 2 10/17/2011 Additional information for NCR 5 10/24/2011			All relavent NCR's are closed(Verified on NCR log) and submitted. No approvals are required from CEC
CONS	CIV-4	After completion of finished grading and erosion and sedimentation control and drainage facilities, the Project Owner shall obtain the CBO's approval of the final "as-graded" grading plans and final "as-built" plans for the erosion and sedimentation control facilities.	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 final approved plans.	Within 30 days of completion of work	1/28/12	KIEWIT			Submittal # 175		10/23/013	
PC-1	CUL-1a	Obtain the services of a Cultural Resources Specialist (CRS), and one or more alternate CRSs, if alternates are needed	Submit resumes to the CEC CPM for review and approval.	At least 30 days prior to start of ground disturbance	2/23/11	GenOn	9/29/2010 Submittal 003	2010-1261 returned 10/4/10	Approved 10/4/2010 Approved Karin Beck as ACRS 2/24/12		9/29/2010	CEC Acceptance resumes on10/5/2010 verified by email from J Caswell (On File) Additionally verified by implied acceptance of section 4.0 of MCR's No.2 No. 14 &MCR No.18
CONS	CUL-1b	Submit the resume of the proposed new CRS to the CPM for review and approval. Also provide the new CRS with copies of the AFC, data responses, confidential reports, and maps and drawings showing the footprint of the power plant and all linear facilities.	Provide the required written documentation to the CPM.	At least 10 days prior to a termination or release of the CRS or within 10 days after the resignation of a CRS	As required	GenOn	9/20/12 Submittal 129		10/4/2010 Approval 10/12/2011 Approval of Ms. Karin Beck as an Alternate 2/14/2012		Revision submitted 9/20/2012	CEC Acceptance resumes on10/5/2010 verified by email from J Caswell (On File) Additionally verified by implied acceptance of section 4.0 of MCR's No.2 No. 14 &MCR No.19

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PC-1	CUL-1c	Provide a letter naming anticipated CRMs for the project and stating that the identified CRMs meet the minimum qualifications for cultural resources monitoring required by this Condition.	Provide the required written documentation to the CPM.	At least 20 days prior to ground disturbance	3/5/11	GenOn	10/7/2010 Submittal 004 3/30/2012 Submittal 042 8/31/11 9/13/2011 11/14/2100 Submittal 075 11/30/2011 Submittal 079 2/8/12 Submittal 089 2/10/12 Submittal 090	10/12/2010	Approved 10/12/2010 Submitted Ms. Kathleen Kubal 8/31/2011 Submitted Mr. Jay Baker 9/13/2011Submitted Alexandra Greenwald 11/14/2011,Submitted Joseph Belk 11/30/2011 Approval 10/12/2011		10/7/2010	CEC Acceptance resumes on10/5/2010 verified by email from J Caswell (On File) Additionally verified by implied acceptance of section 4.0 of MCR's No.2 No. 14 &MCR No.20
CONS	CUL-1d	Submit the resumes of the technical specialists to the CPM for review and approval.	Provide the required written documentation to the CPM.	At least 10 days prior to technical specialists beginning new tasks	As required	CULTURAL SPECIALIST	9/13/2011 Submittal 061 Approved by CEC 10/7/2011 Additional submittal 10/11/2011					CEC Acceptance resumes on 10/5/2010 verified by email from J Caswell (On File) Additionally verified by implied acceptance of section 4.0Verified MCR No.5 2/11/2011
PC-1	CUL-1e	Confirm in writing to the CPM that the approved CRS will be available for onsite work and is prepared to implement cultural resources conditions.	Provide the required written documentation to the CPM.	At least 10 days prior to the start of ground disturbance	3/15/11	GenOn	10/7/2010 Submittal 004	2010-1261	Approved (No Date Given)		10/7/10	CEC Acceptance resumes on 10/5/2010 verified by email from J Caswell (On File) Additionally verified by implied acceptance of section 4.0Verified MCR No.5 2/11/2011
PC-1	CUL-2a	Provide to the CRS, if the CRS has not previously worked on the project, copies of the AFC, data responses, confidential cultural resources reports, all supplements and the SA for the project. Also provide site maps and drawings for cultural resource planning activities.	Provide requested into to the CRS.	At least 30 days prior to the start of ground disturbance	2/23/11	GenOn	12/10/2010 Submittal 21	2010-1831	Approved (No Date Given)		12/10/10	2/4/2011 Verified MCR No.4
CONS	CUL-2b	Provide to the CRS and CPM a schedule of project activities for the following week, including the identification of area(s) where ground disturbance will occur during that week.	On a weekly basis during ground disturbance, a current schedule of anticipated project activity shall be provided to the CRS and CPM by letter, e-mail, or fax.	Weekly during construction	Weekly	KIEWIT			Current as of MCR 25			Verified by weekly Email notices
PC-1	CUL-3a	Submit the Cultural Resources Monitoring and Mitigation Plan (CRMMP), as prepared by the CRS. (See condition for specific requirements.)	Submit the entire CRMMP to the CEC CPM for review and approval.	At least 30 days prior to ground disturbance	2/23/11	CULTURAL SPECIALIST	10/26/2010 Submittal 010 Revised 11/2/2010 Submittal 030	2010-1485 2010-1566	Approved 1/11/2011		10/26/10	1/11/2011 Verified MCR No.5 2/11/2011
PC-1	CUL-3b	Agree to pay curation fees for any materials collected as a result of the archaeological investigations (survey, testing, data recovery)	Provide the required written documentation to the CPM.	At least 30 days prior to ground disturbance	2/23/11	GenOn	10/26/2010 Submittal 007	2010-1485	Approved 1/11/2011		10/26/10	1/11/2011 Verified MCR No.5 2/11/2011
CONS	CUL-4a	If any archaeological monitoring or data recovery activities are conducted during project construction, submit a final Cultural Resources Report (CRR).	Provide the required written documentation to the CPM for review and approval.	Within 90 days after completion of landscaping	3/28/12	CULTURAL SPECIALIST			Submittal # 173		9/4/2013	

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CONS	CUL-4b	If cultural materials requiring curation were collected, provide to the CPM a copy of an agreementor other written commitment form.	Provide the required written documentation to the CPM.	Within 90 days after completion of landscaping	3/28/12	CULTURAL SPECIALIST			Confirmation email		9/4/2013	
CONS	CUL-4c	Provide documentation to the CPM confirming that copies of the final CRR have been provided to the SHPO, the CHRIS, the curating institution, if archaeological materials were collected, and to the Tribal Chairpersons of any Native American groups requesting copies of project-related reports.	Provide the required written documentation to the CPM.	Within 10 days after CPM approval of CRR	CEC Dependant	CULTURAL SPECIALIST						
CONS	CUL-4d	If the project is suspended, submit a draft CRR to the CPM for review and approval.	Provide the required written documentation to the CPM for review and approval.	Within 30 days after requesting a suspension	As required	CULTURAL SPECIALIST			Project is not suspended			Nothing required at this time
PC-1	CUL-5a	The CRS shall prepare a WEAP that addresses all issues specified in Condition and provided training to all new workers within their first week of employment at the project site, laydown areas, and along the linear facilities routes.	Provide the draft text and graphics for the training program to the CPM for review and approval.	At least 30 days prior to ground disturbance	2/23/11	CULTURAL SPECIALIST	10/26/2010 Submittal 007 Submittal 023 Submittal 029 Submittal 032 1/26/2011	2010-1362	Approved 12/10/2010 Submitted WEAP training Video 1/26/2010 Final version sent with the word DRAFT removed 1/28/2011		10/26/2010	12/10/2010 Approved by Email (on file) from J Caswell CEC
CONS	CUL-5b	Provde the WEAP Training Acknowledgement forms of workers who have completed the training in the prior month and a running total of all persons who have completed training to date.	Include a running total in MCR.	Monthly	Include in MCR	KIEWIT					Monthly 10th Busness day of each month	Currently No noted issues with any Monthly report
CONS	CUL-6a	Ensure that CRS, alternate CRS or CRMs monitor full time all ground disturbances at project site along the linear facilites routes, and laydown areas, roads, and other ancillary areas. And Ensure that the CRMs kee a daily log of any monitering	As long as no cultural resources are found, Provide daily a statement that "no cultural resources over 50 years of age were discovered" to the CPM as an e-mail	Daily	Daily	CULTURAL SPECIALIST						Verified in Monthly reports in section 2.12. Requirement complete with suspension Approval received per teleconferance and verified by email 9.14.12
CONS	CUL-6b	Submit monthly monitoring summary reports of cultural resources related monitoring, created by the CRS as required by the condition.	Include in each MCR a copy of the monthly summary report of cultural resources-related monitoring prepared by the CRS and attach any new DPR 523 A forms completed	Monthly	Include in MCR	CULTURAL SPECIALIST					Monthly 10th Busness day of each month	Currently No noted issues with any Monthly report
CONS	CUL-6c	Notify CEC prior to changing or eliminatinating monitoring.	Provide letter or email to CPM for review and approval detailing justification for changing or eliminating monitoring.	At least 24 hours prior to changing level	As required	CULTURAL SPECIALIST	9/10/12 Submittal 123		Notice given Submittal 123			Requirement complete with suspension Approval received per teleconferance and verified by email 9.14.12
CONS	CUL-6d	A Native American monitor shall be obtained to monitor ground disturbance in areas and at depths, if any, where the CUL-1 geoarchaeological study identified the potential for buried prehistoric archaeological deposits and anywhere else that if Native American artifacts are encountered during ground disturbance.	Provide the required written documentation to the CPM.	No later than 30 days after discovery	As required	CULTURAL SPECIALIST			As Required in Monthly Reports included in section 2.12		As Required in Monthly Reports included in section 2.12	Requirement complete with suspension Approval received per teleconferance and verified by email 9.14.12
CONS	CUL-6e	Submit any comments or information provided by Native Americans in response to the project owner's transmittals of information.	Provide the required written documentation to the CPM.	Within 15 days of receipt	As required	GenOn			As Required in Monthly Reports included in section 2.12		As Required in Monthly Reports included in section 2.12	Requirement complete with suspension Approval received per teleconferance and verified by email 9.14.12

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PC-1	CUL-7a	Grant authority to halt construction to the CRS, alternate CRS and the CRMs in the event previously unknown cultural resource sites or materials are encountered, or if known resources may be impacted in a previously unanticipated manner (discovery).	Provide the CPM and CRS with a letter confirming that the CRS, alternate CRS and CRMs have the authority to halt construction activities in the vicinity of a cultural resource discovery, and that the project owner shall ensure that the CRS notifies the CPM within 24 hours of a discovery, or by Monday morning if the cultural resources discovery occurs between 8:00 AM on Friday and 8:00 AM on Sunday morning.	At least 30 days prior to ground disturbance	2/23/11	GenOn	10/26/2010 Submittal 007	2010-1487	Approved 1/11/2011		10/26/10	1/11/11
CONS	CUL-7b	Ensure the CRS notifies all Native American groups that expressed a desire to be notified in the event of a discovery and complete a DPR 523 forms as specified in the condition	Unless discovery is treated presciptiibley, Submitt completed DPR 523 forms to CPM for review and approval	Within 24 hours of discovery (48 to notify Native American groups)	As required	CULTURAL SPECIALIST			Nothing required at this time			Verified in Monthly reports in section 2.12. Requirement complete with suspension Approval received per teleconferance and verified by email 9.14.12
CONS	CUL-8	If soils must be acquired from a non commercial borrow site, the CRS shall survey the borrow site for cultural resources and record on DPR 523 forms and that are identified and convey the results and recommendation for further action to the CPM	Notify the CRS and CPM as soon as it is known that non commercial borrow site will be used and provide documentation of previous archaeological surveys. If none available site must be surveyed 30 days before any soil borrow activates and submit the survey and recommendation to the CPM.	At least 30 days prior to and non commercial site borrow activities	As required	CULTURAL SPECIALIST			Nothing required at this time			Verified in Monthly reports in section 2.12. Requirement complete with suspension Approval received per teleconferance and verified by email 9.14.12
CONS	ELEC-1	Prior to the start of any increment of electrical construction for electrical equipment and systems 480 volts and higher, 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.	Submit to the CBO for design review and approval the items listed in this condition	At least 30 days prior to start of construction of each increment of electrical construction	As required	KIEWIT			Nothing required at this time			Verified in Monthly reports in section 2.13.
CONS	GEN-1	Design, construct, and inspect the project in accordance with the codes listed in the condition.	The project owner shall submit to the CPM and the CBO a statement of verification, signed by the responsible design engineer, attesting that all designs, construction, installation, and inspection requirements of the applicable LORS and the Energy Commission's decision have been met in the area of facility design. The project owner shall provide the CPM a copy of the certificate of occupancy within 30 days of receipt from the CBO.	Five (5) days prior to requesting the issuance of the certificate of occupancy	2/24/13	KIEWIT						
PC-2	GEN-2a	Furnish the CPM and the CBO with a schedule of facility design submittals, and master drawings and master specifications list. The master drawings and master specifications list shall contain a list of proposed submittal packages of designs, calculations, and specifications for major structures, systems, and equipment. The schedule shall contain the planned date of each submittal to the CBO.Provide specific packages to the CPM upon request. Also plans and calculations for all construction work shall be submitted to the CBO for approval.	Submit to the CBO and to the CPM the schedule, and the master drawings and master specifications list of documents to be submitted to the CBO for review and approval.	At least 60 days prior to the start of rough grading	1/24/11	KIEWIT	11/19/2010 Submittal 016 1/4/11 to the CBO	2010-1726	Approved 12/15/2010	11/18/2010	11/19/2010	CEC Acceptance Per email from J Caswell on 12/15/10 (TN2010-1726) Additionaly Verified on MCR No. 4
CONS	GEN-2b	Furnish the CPM and the CBO with an updated schedule of facility design submittals	Provide schedule updates in the monthly compliance report	Monthly	Include in MCR	KIEWIT					Monthly 10th Busness day of each month	Currently No noted issues with any Monthly report
CONS	GEN-3	Make payments to the CBO for design review, plan check and construction inspections based upon a reasonable fee schedule to be negotiated between NCPA and the CBO.	Send copy of CBO's receipt of payment to CPM in next MCR indicating applicable fees have been paid.	Monthly	Include in MCR	GenOn					Monthly 10th Busness day of each month	Currently No noted issues with any Monthly report

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PC-2	GEN-4	Assign a California registered architect, or a structural or civil engineer as the resident engineer (RE) in charge of the project.	Submit to the CBO for review and approval, the resume and registration number of the RE and any other delegated engineers assigned to the project. Notify the CPM of the CBO's approvals of the RE and other delegated engineer(s) within five days of the approval.	At least 30 days prior to start of rough grading	2/23/11	KIEWIT	12/3/2010; To CBO 1-26-11 Submittal 019 Submittal 036	2010-1785	Approved (No Date Given)	11/19/10	12/3/10	2/4/2011 Verified on MCR No. 5 2/11/2011
PC-2	GEN-5	Assign at least one of each of the following California registered engineers to the project: a civil engineer; a soils, geotechnical, or civil engineer experienced and knowledgeable in the practice of soils engineering; and an engineering geologist, a design engineer who is either a structural engineer or a civil engineer fully competent and proficient in the design of power plant structures and equipment supports; a mechanical engineer; and an electrical engineer.	Submit to the CBO for review and approval, resumes and registration numbers of the responsible engineers. Notify the CPM of the CBO's approvals of the responsible engineers within five days of the approval.	At least 30 days prior to start of rough grading	2/23/11	KIEWIT	To CBO 1/17/11 To CEC 2/16/2011 Submittal 036 6/28/2011 addtnl Submittal 052 Submittal 057		CBO Approved 2-16-11 CEC Approved 3/16/2011 Submitted Tharu Nadaraj (Electrical) and Chad Enders (Civil) for approval 6/28/2011 Mr. Nadaraj and Mr. Enders resumes approved 8/12/11 Submitted Gen Amrhein, Chad Enders and Shong Liu for Design Engineer 8/15/2011	11/30/10	1/17/11	2/16/2011 Verified through CBO Returns and MCR No.7 4/16/2011
CONS	GEN-6	Assign to the project, qualified and certified special inspector(s) who shall be responsible for the special inspections required by the 2007 CBC.	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	At least 15 days prior to start of an activity requiring special inspection	As required	KIEWIT	To CBO 2/2/11 Sent to CE 9/23/2011 Submittal 064 Submittal 065		CBO Approved 2-24-11 9/23/2011 Sent Quals to CEC for Jay Locatelli, Micah Ek, Jeffrey Brooks, Jason Burris, Ryan Doyel, and Laura Johnson. Also sent CBO approvals for Jahn Sasser, Stanley Silva, and Anselmo De Haro. CEC approval 10/5/11.		2/2/11	2/24/2011 Verified MCR No.7 4/16/2011
CONS	GEN-7	If any discrepancy in design and/or construction is discovered in any engineering work that has undergone CBO design review and approval, the project owner shall document the discrepancy and recommend required corrective actions.	Transmit a copy of the CBO's approval of any corrective action taken to resolve a discrepancy to the CPM in the next monthly compliance report. If any corrective action is disapproved, the project owner shall advise the CPM, within five days, of the reason for disapproval and the revised corrective action to obtain CBO's approval.	Monthly	Include in MCR	KIEWIT					Monthly 10th Busness day of each month	Currently No noted issues with any Monthly report
CONS	GEN-8	Obtain the CBO's final approval of all completed work that has undergone CBO design review and approval. Request the CBO to inspect the completed structure and review the submitted documents. Notify the CPM after obtaining the CBO's final approval. 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. Electronic copies of the approved plans, specifications, calculations, and marked-up as-builts shall be provided to the CBO for retention by the CPM.	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.	Within 15 days of completion of any work	As required Include in MCR	KIEWIT			Submittal as available in Monthly reports in Section 2.20			Currently No noted issues with any Monthly report
PC-2	GEO-1	Specifically include in the Soils and Engineery Report, laboratory test data, associated geotechnical engineering analyses, and a thorough discussion of the potential for liquefaction and associated lateral spread, and dynamic compaction. The report should also include recommendations for ground improvement and/ or foundation systems necessary to mitigate these potential geologic hazards, if present.	Include in the application for a grading permit a copy of the Soils Engineering Report which address the potential for liquefaction and associated lateral spread; settlement due to compressible soils, dynamic compaction; and the possible presence of expansive clay soils, and a summary of how the results of the analysis were incorporated into the project foundation and grading plan design of review and comment by the Chief Building Official (CBO)	At least 30 days prior to the start of grading	2/23/11	KIEWIT	2/19/2011 to CEC and CBO Submittal 037		Approved 3/28/2011	2/18/11	2/19/11	3/28/2011 CEC agrees that all HAZ submittals made to date have been approved excepting HAZ-8 per email verification 8/24/12
OPS	HAZ-1	Do not use any hazardous material in any quantity or strength not listed in Appendix B unless approved in advance by the CEC CPM.	Provide to the CPM, in the Annual Compliance Report, a list of hazardous materials contained at the facility.	Annually	Include in the ACR	K&G	6/25/13 Submittal 165 O&M HMBP to the CEC					

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CONS	HAZ-2	Concurrently provide and updated Business Plan, and updated Spill Prevention Control, and Countermeasure Plan, and an updated Risk Management Plan to CCCHSD-HMP) and the CPM for review. Reflect all changes in doc and provide copies to CCCHSD-HMP, CCCFPD and the CPM	Provide a copy of the final updated Business Plan and Updated SPCC plan to CPM for approval. Provide the final RMP to CCHSD-HMP and the CCFPD for information and to the CPM for approval	At least 30 days prior to receiving any hazardous material on site	10/14/12	GenOn	7/11/12 Submittal 111 8/17/12 Submittal 118 9/17/12 Submittal 126		Draft RMP sent to the CEC on 7/11/2012 Updated construction SPCC and HMBP plans submitted to the CEC. 8/17/2012	9/17/12		Per teleconferance on 8/23/12 Kiewit plan is acceptable through construction CEC agrees that all HAZ submittals made to date have been approved excepting HAZ-8 per email verification 8/24/12
CONS	HAZ-3	Develop and implement a Safety Management Plan (SMP) for the delivery of aqueous ammonia and other liquid hazmat by tanker truck.	Submit the plan to the CPM for review and approval.	At least 30 days prior to delivery of any hazardous material to the facility	9/30/12	GenOn	10/9/2012 Submittal 131					CEC agrees that all HAZ submittals made to date have been approved excepting HAZ-8 per email verification 8/24/12
CONS	HAZ-4	Design ammonia storage facility to either ASME Pressure Vessel Code and ANSI K61.6 or to API 620. Tanks shall be protected by a secondary containment basin capable of holding 125% of the storage volume	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	8/31/11	GenOn - Tank Kiewit-Secondary containment	6/19/2012 Submittal 108 110					Verified as accepted per Email notice from CEC MS. C Stora on 9/4/2012
CONS	HAZ-5	Direct all vendors delivering aqueous ammonia to the site to use only tanker truck transport vehicles that meet or exceed the specifications of DOT Code MC-307.	Submit copies of notification letter to supply vendors indicating the transport vehicle specs to the CPM for review and approval.	At least 30 days prior to reciept of aqueous ammonia on site	10/1/12	GenOn	8/3/2012 Submittal 113					Verified as accepted per Email notice from CEC MS. C Stora on 9/4/2012
CONS	HAZ-6	Direct all vendors delivering any hazardous material to the site to use only the route approved by the CPM.Obtain approval of the CPM if an alternate route is desired.	Submit copies of the required transportation route limitation direction to the CPM for review and approval.	At least 60 days prior to reciept of any hazardous material on site	9/1/13	GenOn	8/3/2012 Submittal 113					Verified as accepted per Email notice from CEC MS. C Stora on 9/4/2012
PC-2	HAZ-7	Prepare a site-specific construction security plan for the construction phase which addresses the items in the Condition.	Notify the CPM that a site-specific construction security plan is available for review and approval.	At least 30 days prior to start of construction	4/1/13	KIEWIT	11/24/2010 Submittal 017	2010-1731	Approved (No Date Given)	11/30/10	11/24/10	2/4/2011 CEC agrees that all HAZ submittals made to date have been approved excepting HAZ-8 per email verification 8/24/12
CONS	HAZ-8a	Prepare a site-specific security plan for the commissioning and operational phases which addresses all the items in the Condition.	Notify the CPM that a site-specific operations site security plan is available for review and approval.	At least 30 days prior to reciept of hazardous materials on site	10/1/12	GenOn	8/23/2012 Submittal 121 9/17/12 Submittal 126		Letter only due to security needs and FOI requests.		8/22/12	August 22 2012 letter submitted and plan is on file
OPS	HAZ-8b	Include a statement that all current project employee and appropriate contractor background investigations have been performed, and that updated certification statements have been appended to the operations security plan. Also include a statement that the operations security plan includes all current hazardous materials transport vendor certifications for security plans and employee background investigations.	Provide information for inclusion in annual compliance report.	Annually	Include in the ACR	K&G			Reports submitted annually.			
CONS	MECH-1a	MAJOR PIPING & PLUMBING SYSTEMS: Submit for CBO design review and approval the proposed final design, specifications and calculations for each plant major piping and plumbing system listed in the CBO approved master drawing and master specification list.	Submit to the CBO for design review and approval the final plans, specs, and calcs for each major plant piping and plumbing system listed in Facility Design Table 2. including a copy of the signed and stamped statement from the responsible mechanical engineer certifying compliance with LORS	At least 30 days prior to the start of any piping or plumbing construction	As required	KIEWIT					MCR	Approved in monthly installments included in Monthly reports under section 2.21

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CONS	MECH-1b	Upon completion of construction of any such major piping or plumbing system, the project owner shall request the CBO's inspection approval of that construction.	Provide the required written documentation to the CPM.	Monthly	Include in MCR	KIEWIT					Monthly 10th Busness day of each month	Currently No noted issues with any Monthly report
CONS	MECH-2a	PRESSURE VESSELS: Submit for CBO design review and approval the proposed final design, specifications and calculations for each plant pressure vessel listed in the CBO approved master drawing and master specification list.	Submit to the CBO for design review and approval the final plans, specs, and calcs, including a copy of the signed and stamped statement from the responsible mechanical engineer certifying compliance with LORS	At least 30 days prior to start of onsite fabrication or installation of any pressure vessel	As required	KIEWIT					MCR	Approved in monthly installments included in Monthly reports under section 2.22
CONS	MECH-2b	Upon completion of construction of pressure vessels, the project owner shall request the CBO's inspection approval of that construction.	Provide the required written documentation to the CPM.	Monthly	Include in MCR	KIEWIT					Monthly 10th Busness day of each month	Currently No noted issues with any Monthly report
CONS	MECH-3	HVAC SYSTEMS: Submit for CBO design review and approval the proposed final design, specifications and calculations for each HVAC system listed in the CBO approved master drawing and master specification list.	Submit the calcs, plans, and specs to the CBO, including a copy of the signed and stamped statement from the responsible mech engr certifying compliance with CBC and other applicable codes, with a copy of transmittal to CPM.	At least 30 days prior to start of construction of any HVAC or refrig system	As required	KIEWIT					MCR	Approved in monthly installments included in Monthly reports under section 2.22
PC-1	NOISE-1	Notify all residents within one mile of the site and one-half mile of the linear facilities, by mail or other effective means, of the commencement of project construction. Establish a telephone number for use by the public to report any undesirable noise conditions associated with the construction and operation of the project and include that telephone number in the above notice. The telephone number shall be posted at the project site during construction in a manner visible to passersby and maintained until project has been operational for 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	3/10/11	GenOn	12/14/2010 Submittal 22	2010-1903	Approved (No Date Given)		12/14/10	2/4/2011 Verified as accepted in MCR MCR No.4 MCR 17 MCR No. 21
CONS	NOISE-2	Throughout the construction and operation of the project, document, investigate, evaluate, and attempt to resolve all project-related noise complaints. Noise Complaint Resolution process will be used.	File a Noise Complaint Resolution Form with the City and the CPM documenting resolution of the compliant.	Within 5 days of receiving a noise compliant	As required	K&G	2/4/2011 Submittal 034		Received noise complaint 1/31/2011. Submited form to the CEC 2/4/2011			
PC-1	NOISE-3	Submit a noise control program and statement signed by project manager verifying that noise control program will be implemented throughout construction of the project. The noise control program must comply with applicable OSHA and Cal-OSHA standards.	Submit a noise control program and project manager's verification letter to the CEC CPM for review and approval.	At least 30 days prior to ground disturbance	2/23/11	KIEWIT	11/19/2010 Submittal 016 1/4/11 to the CBO	2010-1727	Approved 12/15/2010		11/19/2010	CEC acceptance per email (TN2010-1727) 12/15/2010 Also Verified as accepted MCR No.4
COMM	NOISE-4a	Project design will include noise mitigation measures to ensure that noise levels due to operation of the project alone will not exceed an hourly average of 54 dBA at or near LT-1 and 45 dBA at or near LT-2; No single piece of equipment shall be allowed to stand out as a source of noise that draws legitimate complaints.	Conduct a community noise survey at monitoring location LT-1, LT-2, or at a closer location acceptable to the CPM. This survey during the power plant's full-load operation shall also include measurement of one-third octave band sound pressure levels.Conduct a survey of noise at monitoring locations.	Within 30 days of project's first achieving a sustained output of 85% or greater of rated capacity	1/22/12	KIEWIT	7/8/13 CEC Submittal 167					
COMM	NOISE-4b	Submit a summary report of the survey to the CPM. Included in the survey report shall be a description of any additional mitigation measures necessary to achieve compliance with the above listed noise limit, and a schedule, subject to CPM approval, for implementing these measures. When these measures are in place, the project owner shall repeat the noise survey.	Submit required info to the CPM.	Within 15 days after completing noise survey	2/6/12	KIEWIT	7/8/13 CEC Submittal 167					

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COMM	NOISE-5	Conduct an occupational noise survey to identify the noise hazardous areas in the facility when plant reaches 85% of rated capacity or greater	Prepare a report of the survey results and, if necessary, identify proposed mitigation measures that will be employed to comply with the applicable California and federal regulations.	Within 30 days after completing survey	2/21/12	KIEWIT	7/8/13 CEC Submittal 168					
PC-1	NOISE-6	Heavy equipment operation and noisy construction work relating to any project features, including pile driving, shall be restricted to the times delineated below, unless a waiver has been issued by the City of Antioch for alternative construction hour limitations (specified to be Monday through Saturday 6:00 a.m. to 7:00 p.m., and Sundays and holidays 9:00 a.m. to 5:00p.m.): Mondays through Fridays: 7:00 a.m. to 6:00 p.m. Weekends and holidays: 9:00 a.m. to 5:00 p.m. Haul trucks and other engine-powered equipment shall be equipped with adequate mufflers. Haul trucks shall be operated in accordance with posted speed limits. Truck engine exhaust brake use shall be limited to emergencies.	Transmit to the CPM a statement, signed by the project owner's project manager, acknowledging that the above restriction will be observed throughout the the constucito of the project. If waiver is issued by the city it should be provided to the CPM for review and approval. also verified MCR No.4 MCR 17 MCR No. 21	Prior to Ground Distrubance	2/23/11	KIEWIT	11/19/2010 Submittal 016 5/5/2011 Submittal 047 5/19/2011 Submittal 049 12/29/2011 Submittal 083 April 27, 2012 Submittal 099	2010-1728	Approved 12/15/2010 4/22/2011 Submitted request for Waiver for well drilling and foundation pours. 5/19/2011 Submitted request for waiver for well drilling in July and Aug. Submitted hours for 0700-2400 12/29/2011 Apprvd 1/9/12. Submitted Addntl work hour request 4/27/2011. Approved 5/4/2012.		11/19/2010	Approved by CEC 12/15/10 by email from J Caswell (TN2010-1728) also 5/4/2012. with suspension Approval received per teleconferance and verified by email 9.14.12 Also verified MCR No.4 MCR 17 MCR No. 21
PC-1	PAL-1a	Provide the CPM with the resume and qualifications of the Paleontological Resource Specialist (PRS) for review and approval.	Submit the resume, references, and statement of availability to the CPM for review and approval.	At least 60 days prior to ground disturbance	1/24/11	GenOn	9/29/2010 Submittal 003 4/22/2011	2010-1260 10/5/2010	Approved 9/30/2010 New Monitor Annette Conrelius 8/12/2011 submitted resume for Teresa Butler.		9/29/2010	11/29/2010 Email acceptance from CEC (On File) Also Verified as accepted per Section 4.0 in MCR No.2 with suspension Approval received per teleconferance and verified by email 9.14.12
PC-1	PAL-1b	Provide a letter with resumes naming anticipated monitors stating they meet mimimum quals for monitoring.	Submit the requested info to the CPM .	At least 20 days prior to ground disturbance	3/5/11	GenOn	11/2/2010 Submittal 003 Submittal 010 Submittal 045 Submittal 056	2010-1565	Approved (No Date Given)		11/2/2010	11/29/2010 Email acceptance from CEC (On File) also per section 4.0 MCR No.5 on 2/4/2011 & 2/11/2011 with suspension Approval received per teleconferance and
PC-1	PAL-2	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.	Provide maps and drawings to the PRS and CEC CPM	At least 30 days prior to ground disturbance	2/23/11	GenOn	12/2/2010 Sumbittal 21		Approved (No Date Given)		12/2/2010	2/4/2011 Verified as accepted MCR No.5 2/11/2011 with suspension Approval received per teleconferance and verified by email 9.14.12
PC-1	PAL-3	The PRS shall prepare and submit a Paleontological Resources Monitoring and Mitigation Plan (PRMMP) to identify general and specific measures to minimize potential impacts to significant paleontological resources.	Provide the PRMMP to the CEC CPM, including 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	2/23/11	PRS	11/4/2010 Submittal 011 Final 12/14/2010 Submittal 022	2010-1577	Ammended 7/26/10 Affidavit not required. Approved 12/21/2010		11/4/2010	CEC Acceptance by Email from J Caswell 11/29/2010 (On File) Additional Verificationper acceptances of section 4.0 of MCR No. 3 with suspension Approval received per teleconferance and verified by email 9.14.12

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PC-1	PAL-4	If deemed needed, the PRS shall prepare and conduct weekly CPM-approved training for all project managers, construction supervisors and workers who are involved with or operate ground disturbing equipment or tools.	Provide the WEAP materials to the CPM including: brochure, reporting procedures, script, and final video.	At least 30 days prior to ground disturbance	2/23/11	PRS	10/26/2010 Submittal 008 Submittal 023 Submittal 029 Submittal 032 1/26/2011	2010-1489	APPROVED ON GOING 11/29/2010 Submitted WEAP training video 1/26/2011 Unapproved with combination of all 3 ology sections into one booklet. 2/1/2011 Returned for uniformity reasons and a request to include section on local laws and ordinances. Approved 2/8/2011		10/26/2010	CEC Acceptance by Email from J Caswell 11/29/2010 (On File) Additional Verificationper acceptances of section 4.0 of MCR No. 3 with suspension Approval received per teleconferance and verified by email 9.14.12
CONS	PAL-5	Ensure that the PRS and PRM(s) monitor consistently with the PRMMP, all construction-related grading, excavation, trenching, and auguring in areas where potentially fossil-bearing materials have been identified.	Paleo monitors shall provide monthly summaries for inclusion in MCR.	Monthly	Include in MCR	PRS	8/9/12 Submittal 117		Letter Submitted 8/15/2012 requesting closure to monitoring due to age of fossils already recovered.		Monthly 10th Busness day of each month	Currently No noted issues with any Monthly report
CONS	PAL-6	Through the designated PRS, ensure that all components of the PRMMP are adequately performed (see list of activities included in Condition).	Maintain in compliance file copies of signed contracts or agreements with the designated PRS and other qualified research specialists. Maintain these files for a period of three years after completion and approval of the CPM-approved PRR required bu PAL-07.	As required	As required	PRS						Verified as accepted per Email notice from CEC MS. C Stora on 9/4/2012
CONS	PAL-7	Ensure preparation of a Paleontological Resources Report (PRR) by the designated PRS to be completed following completion of ground disturbing activities.	Submit the PRR under confidential cover to the CPM.	Within 90 days after completion of ground disturbing activities	3/28/12	PRS			Submittal # 174		9/4/2013	
PC-2	SOCIO-1	Pay the one-time statutory school development fee to the Antioch Unified School District as required by Education Code Section 17620	Provide the CPM proof of payment of the fee	At least 30 days prior to start of project construction	4/1/13	GenOn	2/4/2011 Submittal 034 2/2/2012 Submittal 087		Approved (No Paperwork Given) Submited additional payment 2/2/2012	2/4/2011	2/4/2011	2/9/2011 Verified MCR No.6 3/14/2011
PC-1	Soil & Water-1a	Coordinate with the Water Board as necessary develop and implement a construction SWPPP	Submit to the CPM copies of all correspondence with the Water Control Board regarding the SWPPP within 10 days of receipt.	No later than 30 days prior to start of site mobilization	1/16/11	KIEWIT	1/5/2011 Submittal 025		Approved (No Date Given)		1/5/2011	2/4/2011 Verified MCR No.6 3/14/2011
PC-1	Soil & Water-1b	Develop and implement a Storm Water Pollution Prevention Plan (construction SWPPP) for the LEC site, laydown areas, and on-site linear facilities. Submit to the CPM a copy of the construction SWPPP. Info should include a copy of the Notice of Intent for Compliance with the General NPDES permit	Submit to the CPM a copy of the NOTICE OF INTENT FOR COMPLIANCE with the General NPDES permit.	No later than 60 days prior to site mobilization	12/17/10	KIEWIT	1/5/11		Approved (No Date Given)	12/1/2010	1/5/2011	2/4/2011 Verified MCR No.6 3/14/2011

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PC-1	Soil & Water-2a	Obtain CPM approval for a site- specific Drainage, Erosion, and Sedimentation Control Plan (DESCP)	Submit a copy of the DESCP to the CPM along with evidence from Contra Costa County that the DESCP meets the requirements of Contra Costa Clean Water Program.	No later than 30 days prior to the start of site mobilization	1/16/11	KIEWIT	1/24/2011 Submittal 028	2011-0158	Approved (No Paperwork Given)	12/1/2010	1/24/2011	2/4/2011 Verified MCR No.6 3/14/2011
PC-2	Soil & Water-2b	Coordinate with Contra Costa County to ensure that the DESCP meets local requirements for a post-construction Storm Water Control Plan.	The DESCP shall meet local requirements for a post-construction Storm Water Control Plan.	No later than 30 days prior to the start of construction.	3/20/11	KIEWIT	2/19/2011 Submittal 37		Approved 3/28/2011	11/29/2010	2/19/2011	3/28/2011 Verified MCR No.7 4/16/2011
CONS	Soil & Water-2c	Monitor and Maintain effective drainage, erosion and sediment control measures during construction	Provide Analysis of effectiveness of drainage, erosion and sediment control measures and the results of monitoring and maintain activities in MCR	Monthly	Include in MCR	KIEWIT					Monthly 10th Busness day of each month	Currently No noted issues with any Monthly report
CONS	Soil & Water-3	If groundwater is encountered during construction or operation: comply with the requirements of the CVRWQCB Order NO. R5-2008-0081 for Waste Discharge Requirements for Dewatering and Other Low threat Discharges to Surface Waters.	Submit a complete Notice of Intent (NOI) to obtain coverage under CVRWQCB Order No. R5-2008-0081. Submit copies to the CPM of all correspondence between the project owner and the CVRWQCB regarding Order No. R5-2008-0081 within 10 days of its receipt or submittal.	Prior to any groundwater discharge or dewatering activities	As required	KIEWIT	11/9/2011 Submittal 074 11/23/2011 Submittal 077 1/5/2012 Submittal 084 5/10/12 Submittal 101		Provided NOI from RWB 11/9/2011. Addnl 11/23/2011		11/9/11, 11/23/11, 5/10/12	Verified as accepted per Email notice from CEC MS. C Stora on 9/4/2012
CONS	Soil & Water-4	Comply with the requirements of the General National Pollutant Discharge Elimination System (NPDES) Permit for Discharges of Storm Water Associated with Industrial Activity (WQO 97-03-DWQ).	Develop andsubmit an Industrial SWPPP for the operation of the MLGS. Submit copies to the CPM of all correspondence between the project owner and the Central Valley Regional Water Quality Control Board regarding the industrial SWPPP within 10 days of its receipt or submittal.	Prior to commercial ops	12/23/11	GenOn	4/25/2013 Submittal 161					
CONS	Soil & Water-5a	Provide 2 copies of the executed Waste Water Discharge Agreement with DDSD for the long term discharge of all watewater streams for the MLGS to DDSD wastewater treatment facilites. Shall specify Peak dischage rate of 118 gpm. Do not connect to City of Antioch's wastewater pipline along Wilbur Ave w/o the final agreement in place and submitted to CPM	Submit 2 copies of the of the executed agreement for the discharge of wastewater form the MLGS	No later than 60 days prior to connection the DDSD wastewater pipline	9/1/11	GenOn	3/12/2012 Submittal 094 3/20/2013 Submittal 154		Approved by CEC per email response	3/12/2012	3/12/2012 Submitted 2 copies of signed Permit on 3/20/2013	Verified as accepted per Email notice from CEC MS. C Stora on 9/4/2012
OPS	Soil & Water-5b	During operation an monitoring reports providied to DDSD shall also be provided to the CPM.	Submit any wasterwater quality monitoring reports required by DDSD, and a full explanation of corrective actions taken if a violation occurs to the CPM in the annual compliance report	Annually	Include in the ACR	GenOn			Reports submitted annually.			
OPS	Soil & Water-5c	Notify the CPM of any violations of discharge limits	Submit any notice of violations from DDSD to the CPM and fully explain the corrective actions taken in the annual compliance report	Within 10 days of receipt of violation	As required	GenOn						
CONS	Soil & Water-6a	Install and Maintain metering devices as part of the water supply and distribution system to monitor and record in gallons per the volume of ground water and potable water supplied to the MLGS.	Submit Evidence to the CPM that metering devices have been installed and are operational on groundwater wells, potable eater and recycled water (if applicable) pipelines serving the project.	At least 60 days prior to use of any water source for operation	9/30/11	KIEWIT	9/21/12 Submittal 130					Submittal evidentury only no approval required
OPS	Soil & Water-6b	Monitor and track the water use by operating the water metering devices for the life of the project. Differentiate between groundwater, potable water, and recycled water. Water use should not exceed 50 AFY from any source	Provide (1)a report on the service testing and calibration of the metering devices, (2)a water use summary report which is based on and distinguished between groundwater, potable water and recycled water, (3) Copies of meter records for the City of Antioch documented the volume of potable water supplied over the previous year as specified (4) Brackish groundwater sample laboratory test results (in years where ground water is used) (5) data or info describing the water conservation program w/ estimates of the annual water saved in the ACR	Annually	Include in the ACR	GenOn			Reports submitted annually.			

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CONS	Soil & Water-6c	Provide evidence to the CPM that the City has agreed to supply emergency backup water to the project in sufficient quantities to meet the projects needs at a flow rate comparable with the flow rate provide by one on site well	Submit to the CPM evidence that city water meters are installed and are operational. And proof that the City can deliver alternative water the site in the event of an emergency interruption at a flow rate of 420gpm	No later than 30 days prior to installing a connection to the City of Antioch potable water main	9/1/11	GenOn	9/29/2011 Submittal 067 Additional submittal 10/11/2011 Submittal 069		Provided copies of correspondence regarding supply of city water.			Verified as accepted per Email notice from CEC MS. C Stora on 9/4/2012
CONS	Soil & Water-6d	If Primary Alternative water source is approved by CPM to be City of Antioch Fresh Water Supply. (1)Pay fee equal to no more than $1,000/ AF of City of Antioch Water consumed annually. (2) A payment of $15,000 shall be made to the city to offset water used during construction.	Provide evidence that brackish groundwater is environmentally undesirable or economical unsound. Provide proof that the initial water conservation fee of $15,000 was paid to the city of Antioch.	Prior to site operations	4/1/13	GenOn	9/29/2011 Submittal 067		Provided evidence of $15,000 payement to the city.	9/18/2012	Sent by Email to CEC PM C Strora 9/18	9/1912 Email confirmation to Dawn confirmation
OPS	Soil & Water-6e	If Primary Alternative water source (City of Antioch Water) is being used in operation, Pay an annual fee of $1,000/ AF of City of Antioch Water consumed annually	Calculate the annual use payment at the rate of $1,000/ AF of fresh water reported annual in in the ACR. Pay the amount confirmed by the CPM	No later than 60 days following the approval of the ACR	As required	GenOn			Paid annually in May.			
CONS	STRUC-1a	Prior to the start of any increment of construction, submit to the CBO for design review and approval the proposed lateral force procedures for project structures and equipment identified in the CBO-approved master drawing and master specification list. Must include items within this condiditon	Construction of any structure or component shall not begin until the CBO has approved the lateral force procedures to be employed in designing that structure or component. Submit to the CBO the final design plans, specs and calcs with a copy of the transmittal letter to the CPM.	At least 60 days prior to start of any structure or component listed in Facility Design Table 2 of GEN-2	As required	KIEWIT						Verified as accepted per Email notice from CEC MS. C Stora on 9/4/2012
CONS	STRUC-1b	Submit to the CPM a copy of a statement from the CBO that the proposed structural plans, specifications, and calculations have been approved and comply with the requirements set forth in applicable engineering LORS.	Submit required info to the CPM.	Monthly	Include in MCR	KIEWIT					Monthly 10th Busness day of each month	Currently No noted issues with any Monthly report
CONS	STRUC-2	Submit to the CBO the required number of sets of the documents related to work that has undergone CBO design review and approval related to concrete cylinder strength test reports and pour sign-off sheets, bolt torque and field weld inspection reports, and other reports covering structural activities requiring special inspections in accordance with CBC.	If discrepancies are found, within 5 days the Project Owner shall prepare and submit an NCR to the CBO with a copy of the transmittal letter to the CPM. Within 5 days of resolution, the Project Owner shall submit a copy of the correction action to the CBO and CPM. The CBO's approval or disapproval shall be submitted to the CPM within 15 delays.	As required	As required	KIEWIT						Verified by CBO approvals and documented in Monthly reports section 2.26
CONS	STRUC-3	Submit to the CBO design changes to the final plans required by the CBC, including the revised drawings, specifications, calculations, and a complete description of, and supporting rationale for, the proposed changes, and shall give to the CBO prior notice of the intended filing.	Notify the CBO of the intended filing of design changes, and notify the CPM in the MCR of the CBO's approval of the revised plans.	Monthly	Include in MCR	KIEWIT			No inpending changes		Monthly 10th Busness day of each month	Currently No noted issues with any Monthly report
CONS	STRUC-4	Tanks and vessels containing quantities of toxic or hazardous materials exceeding amounts specified in the 2007 CBC shall, at a minimum, be designed to comply with the requirements of that chapter.	Submit to the CBO for design review and approval the final plans, specs, and calcs, including a copy of the signed and stamped statement from the responsible engineer certifying compliance with LORS	At least 30 days prior to the start of installation of the tanks or vessels	As required	GenOn - Ammonia Tank KIEWIT - All Other						Verified by CBO approvals and documented in Monthly reports section 2.28
CONS	TLSN-1	Construct the proposed transmission line 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 Pacific Gas and Electric's EMF-reduction guidelines.	Submit to the CPM a letter signed by a CA registered EE affirming that the line will be constructed according to the requirements set forth in the Condition.	At least 30 days prior to starting construction of proposed new lines	4/1/12	KIEWIT	4/13/12 Submittal 097				4/13/2012	Verified as accepted per Email notice from CEC MS. C Stora on 9/4/2012

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CONS	TLSN-2	Every reasonable effort will be made to identify and correct, on a case-specific basis, any complaints of interference with radio or TV signals from operation of the proposed line and associated switchyard.	Submit to the CPM a letter signed by a CA registered EE affirming the project owners intention to comply with this requirment.	At least 30 days before starting operation of either line option	8/22/12	KIEWIT	8/21/2012 Submittal 120				8/21/2012	Verified as accepted per Email notice from CEC MS. C Stora on 9/4/2012
CONS	TLSN-3	Use a qualified individual to measure the strengths of the electric and magnetic fields from the line at the points of maximum intensity along the proposed route. The measurements shall be made before and after energization according to ANSI/IEEE standard procedures. These measurements shall be completed not later than six months after the start of operations.	File copies of the pre-and post-energization measurements with the CPM.	Within 60 days after completion of measurements	11/12/12	KIEWIT	7/12/13 CEC Submittal 169					
CONS	TLSN-4	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.	Transmit to the CPM a letter affirming the intention to comply with this condition.	At least 30 days before the start of operations	8/24/2012 Submittal	GenOn	8/22/2012 Submittal 122				8/22/2012	Verified as accepted per Email notice from CEC MS. C Stora on 9/4/2012
CONS	TLSN-5	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.	Transmit to the CPM a letter confirming compliance with this condition.	At least 30 days before lines are energized	8/22/12	KIEWIT	8/20/2012 Submittal 119				8/21/2012	Verified as accepted per Email notice from CEC MS. C Stora on 9/4/2012
PC-1	TRANS-1	In coordination with Contra Costa County Public Works Department, develop and implement a construction traffic control plan to include the items specified within the condition	Provide CCCPW and the city of Antioch Engineering Department for review and comment the construction traffic control plan. Provide to the CPM the construction control plan and the CCPW and the City of Antioch Engineering Departments comments for review and approval.	At least 60 days prior to the start of site mobilization	12/17/10	KIEWIT	11/18/2010 Submittal 015 1/5/2011 Submittal 024 Submittal 031 Submittal 033 1/31/2011	2010-1685 2011-0219	Returned for addional Informatio 12/13/2010. Resubmitted 1/5/2011 Resubmitted additional information 1/31/2011 Resubmitted the plan in the CEC suggested format 2/1/2011	11/18/2010	11/18/2010	2/8/2011 Verified by Email from C Stora on 9/18/2012
PC-1	TRANS-2a	Prepare a mitigation plan for Wilbur Ave should it be damaged by project construction. Should ensure that if damage occurs it will be repaired to original condition. The plan include the condition specified items (Photographic/videotape evidence of pre construction condition is req)	Submit a mitigation plan focused on restoring the local identified roads to is pre-project condition to the City of Antioch for review and comment and to the CPM for Review and approval.	At least 90 days prior to the start of any site (or related facilities) mobilization	11/17/10	KIEWIT	11/18/2010 Submittal 015	2010-1686	Approved 2/4/2011 No Paperwork Given		11/18/2010	2/4/2011 Verified MCR No.6 3/14/2011
CONS	TRANS-2b	Restore any area of Wilbur Ave that were damaged during construction to their original condition.	Provide photo/ videotape documentation to the CCCPW and the City of Antioch Engineering Department and the CPM that any damaged areas have been restored.	Within 90 days following the completion of construction	3/28/12	KIEWIT	3/15/2013 Submittal 176					
CONS	TSE-1	Provide the CPM and CBO with a schedule of transmission facility design submittals, a master drawing list, a master specifications list, and a major equipment and structure list as indicated in the condition.	Provide info to CBO and CPM.	At least 60 days prior to start of transmission line construction.	3/2/12	KIEWIT	10/21/2011 Submittal 082					Submittal requirement only no approvals requested, updates for schedule are provided in Monthly reports

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PC-2	TSE-2	Assign an electrical engineer and at least one of each of the following: a civil engineer; geotechnical engineer or a civil engineer experienced and knowledgeable in the practice of soils engineering; a design engineer who is either a structural engineer or a civil engineer and fully competent and proficient in the design of power plant structures and equipment supports; or a mechanical engineer.	Prior to the start of rough grading, the project owner shall submit to theCBO for review and approval, the names, qualifications, and registration numbers of all the responsible engineers assigned to the project. The project owner shall notify theCPM of the CBO's approvals of the engineers within five days of the approval.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 daysof the approval	Prior to start of rough grading	2/23/11	KIEWIT	To CBO 1-27-11 To CEC 2/16/2011 Submittal 036 8/15/2011 Submittal 057 9/29/2011 Submittal 066	Verballty approved (C.H.)	CBO Approved 2-16-11 CEC Approved 3/16/2011 Submitted Reid Strain for Design Engineer and Richard Jacober for Electrical Engineer 8/16/2011 9/29/2011 submitted Daren Phelps as EE. CEC Approved 10/5/11.	11/30/10	1/27/2011	3/16/11
CONS	TSE-3	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. The discrepancy documentation shall become a controlled document and shall be submitted to the CBO for review and approval and refer to 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	As required	KIEWIT	3/2/12 Submittal 093				3/2/2012	Verified as accepted per Email notice from CEC MS. C Stora on 9/4/2012
CONS	TSE-4	For the power plant switchyard, outlet line and termination, construction shall not begin until plans for that increment of construction 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.	Submit to the CBO for review and approval the final design plans, specifications and calculations	Before the start of each increment of construction	As required	K&G	9/20/12 Submittal 127			9/20/2012	9/20/2002	Verified as accepted per Email notice from CEC MS. C Stora on 9/4/2012
CONS	TSE-5a	Design, construct, and operate the proposed transmission facilitiesin conformance with all applicable LORS, and the requirements listed in the condition.	Submit to the CBO: a) Design drawings, specifications, and calculations conforming 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* , CA ISO standards, National Electric Code (NEC) and related industry standards, for the poles/towers, foundations, anchor bolts, conductors, grounding systems, and major switchyard equipment;	Prior to start to start of construction of the transmission facilities	5/1/12	KIEWIT	3/12/12				3/12/2012	Verified as accepted per Email notice from CEC MS. C Stora on 9/4/2012
CONS	TSE-5b	Provide electrical one-line diagrams signed and sealed by the registered professional electrical engineer in charge, a route map, and an engineering description of the equipment and configurations covered by requirements TSE-5 a) through j),	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 CPUC General Order 95 or National Electric Safety Code (NESC); Title 8 of the California Code and Regulations (Title 8); Articles 35, 36 and 37 of the *High Voltage Electric Safety Orders* , California ISO standards, National Electric Code (NEC), and related industry standards;	Prior to start to start of construction of the transmission facilities	5/1/12	KIEWIT	9/20/12 Submittal 128			3/12/2012 9/20/2012	3/12/2012 9/20/2012	Verified as accepted per Email notice from CEC MS. C Stora on 9/4/2012
CONS	TSE-5c	Provide the final Detailed Facility Study (DFS) including a description of facility upgrades, operational mitigation measures, and/or special protection system sequencing and timing if applicable.	c) Electrical one-line diagrams signed and sealed by the registered professional electrical engineer in charge, a route map, and an engineering description of the equipment and configurations covered by requirements **TSE-5** a) through f);	Prior to start to start of construction of the transmission facilities	5/1/12	KIEWIT	3/12/12				3/12/2012	Verified By email from(CEC) C Stora on 9/4/12
CONS	TSE-5d	Provide the executed project owner and California ISO facility interconnection agreement.	d) The Special Protection System (SPS) sequencing and timing if applicable shall be provided concurrently to the CPM.	Prior to start to start of construction of the transmission facilities	5/1/12	GenOn	10/1/13		See email from CEC C Stora			

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CONS	TSE-5e	Provide evidence showing coordination with the affected agencies and utilities including but not limited to Western Area Power Administration and Lodi Electric Utility.	e) A letter stating that the mitigation measures or projects selected by the transmission owners for each reliability criteria violation, for which the project is responsible, are acceptable.	Prior to start to start of construction of the transmission facilities	5/1/12	GenOn	10/1/13		See email from CEC C Stora			
CONS	TSE-5f	Inform the CPM and CBO of any impending changes which may not conform to the requirements of TSE-05 and request approval to implement such changes.	f) The final Phase II Interconnection Study, including a description of facility upgrades, operational mitigation measures, and/or special protection system sequencing and timing if applicable, and.	Prior to start to start of construction of the transmission facilities	5/1/12	GenOn	3/2/12			3/2/2012	3/2/2012	Verified as accepted per Email notice from CEC MS. C Stora on 9/4/2012
CONS	TSE-5g	Provide a copy of the executed LGIA signed by the California ISO and the Project Owner.	g) A copy of the executed LGIA signed by the California ISO and the project owner. Prior to the start of construction of or modification of transmission facilities, the project owner shall inform the CBO and the CPM of any anticipated changes to the design that are different from the design previously submitted and approved and shall submit a detailed description of the proposed change and complete engineering, environmental, and economic rationale for the change to the CPM and CBO for review and approval.	Prior to start to start of construction of the transmission facilities	5/1/12	GenOn	3/2/12			3/2/2012	3/2/2012	Verified as accepted per Email notice from CEC MS. C Stora on 9/4/2012
CONS	TSE-5h	Inform the CPM and CBO of any impending changes which may not conform to the requirements of TSE-05 and request approval to implement such changes.	Inform the CBO and CPM of any impending changes.	Prior to start to start of construction of the transmission facilities	As required	KIEWIT			No inpending changes			
CONS	TSE-6	Provide notice to the Cal-ISO prior to synchronizing the facility with the California transmission system:	Provide notice to the Cal-ISO prior to synchronizing the facility with the California transmission system:	One week prior to initial synchronization w/ the grid	11/1/12	GenOn						
CONS	TSE-7	Inspect the transmission facilities during and after project construction, and for any subsequent CPM- and CBO-approved changes, 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, California ISO standards, National Electric Code (NEC) and related industry standards.	Transmit to the CPM and CBO: "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 charge; a statement verifying conformity with the standards set forth in Condition; "as built" engineering description of the mechanical, structural, and civil portion of the transmission facilities signed and sealed by the registered engineer in charge or an acceptable alternative verification; and 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 synchronization to the grid	1/20/13	KIEWIT			Submitted to Steve Erickson January 2013			
CONS	VIS-1a	Develop a treatment plan for the surfaces of all project structures and buildings visible to the public as specified in the condition.	Submit the proposed treatment plan to the CPM for review and approval and simultaneously to the CCC or responsible jurisdiction for review and comment. Any modifications must be sent to the CPM for approval	At least 90 days prior to specifying the vendor the colors and finishes of the first structures or building that are surface treated during manufacturing	12/1/10	K&M	5/19/2011 Submittal 049 6/6/2011 Submittal 050		Submitted plan per Condition on 5/19/2011 Submitted Hard Copies to Dawn Owens for submission to the City and County on 5/19/2011. Based on comments from the CEC resubmitted on 6/6/2011. Verbal approval received on Vis-1 approval around 6/15/2011.			
CONS	VIS-1b	Treat the surfaces of all project structures and buildings visible to the public as specified in the condition.	Notify the CPM that the surface treatment of all listed structures and buildings has been completed and is ready for inspection and submit electronic color photographs taken from the same KOPs.	Prior to start of commerical operation	12/23/11	KIEWIT	Email from Christine Stora of the CEC dated 3/15/13 conditionally accepting the surface treatments.					

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OPS	VIS-1c	Ensure proper treatment maintenance for the life of the project.	Provide a status report regarding surface treatment maintenance in the ACR which specifies the items in the condition	Annually	Include in the ACR	GenOn			Reports submitted annually.			
CONS	VIS-2a	Develop a landscaping plan which would Provide landscaping that reduces the visibility of the power plant structures and complies with local policies and ordinances	Submit landscaping plan to the CPM for review and approval and simultaneously to CCC for review and comment.	At least 90 days prior to installation	12/1/12	GenOn	2/25/13 Submittal 150					
CONS	VIS-2b	Provide landscaping that reduces the visibility of the power plant structures and complies with local policies and ordinances.	Simultaneously notify the CPM and CCC after the completion of the landscaping that the site is ready for inspection.	Within 7 days after completing landscaping	3/1/13	GenOn			3/12/2014: DJH contacting Zion to make repairs prior to scheduling an inspection.			
OPS	VIS-2c	Maintain landscaping, including any needed irrigation and annual or semi annual debris removal for the life of the project	Report landscaping maintence activites, including replacement of dead or dying vegetation for the previous year of operation in the ACR	Annually	Include in the ACR	GenOn			Reports submitted annually.			
CONS	VIS-3a	Design and install all permanent exterior lighting such that (a) lamps and reflectors are not visible from beyond the project site, including any off-site security buffer areas; (b) lighting does not cause excessive reflected glare; (c) direct lighting does not illuminate the nighttime sky; (d) illumination of the project and its immediate vicinity is minimized, and (e) the plan complies with local policies and ordinances.	Contact the CPM to discuss the documentation required in the lighting mitigation plan. The project owner shall not order any exterior lighting until receiving CPM approval of the lighting mitigation plan.	At least 90 days prior to ordering any permanent exterior lighting	2/1/13	KIEWIT	3/26/2012 Submittal 096		The following participated on the call on 3/7/12: Scott Kennedy, Tharu Nadarajah, Greg Zullig, Kelly Zullig (all PKS), David Frandsen (GenOn), David Flores and Chrstine Stora (CEC) Drawing documentation to follow.		3/7/2012	3/7/2012 Verified in MCR No. 21
CONS	VIS-3b	Prepare a lighting mitigation plan that includes the specific info set forth in the condition.	Submit to the CPM for review and approval and simultaneously to the Contra Costa County for review and comment a lighting mitigation plan.	At least 60 days prior to ordering any permanent exterior lighting	3/1/13	KIEWIT	3/26/2012 Submittal 096 4/16/12 Submittal 098				4/16/2012	5/3/2012 Verified in MCR No. 21
CONS	VIS-3c	Notify the CPM that the permanent exterior lighting has been completed and is ready for inspection.	Set up an inspection appointment.	Prior to start of commercial operation	12/29/11	KIEWIT	David Flores of the CEC performed the inspection with Raja on 4/2/13					
CONS	VIS-3d	Notify the CPM of any complaints re: lighting.	Submit a complaint resolution form to the CPM record each lighting complaint and document resolution of that complaint.	Within 48 hours after receiving a complaint	As required	KIEWIT- During Construction GenOn -			No Complaints			
PC-1	WASTE-1a	Comply with BAAQMD Regulation 11, rule 2 req for management and disposal of asbestos contain material removed during project demolition.	Provide to the CPM copies of the BAAQMD notification materials, acknowledgment letter and job number assigned by the BAAQMD for review and approval	No less than 10 day prior to commencement of project related demolition	1/7/11	K&G	1/24/2011 Submittal 028		Approved 1/31/2011 No Paperwork		1/24/2011	1/31/2011 Verified MCR No. 5 2/11/2011
CONS	WASTE-1b	Manage asbestos waste during demolition to comply with BAAQMD regulation 11, rule 2	Provide summary report(s) to the CPM on asbestos waste management via MCR to include items specified w/in the condition	Monthly	Include in MCR	K&G					Monthly 10th Busness day of each month	Currently No noted issues with any Monthly report

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PC-1	WASTE-2	Complete a lead-based paint survey of all structures to be demolished and ensure that project related demolition debris contain lead based paint is properly managed and disposed of in accordance with all applicable LORS	Verification: At least 30 days prior to the start of project-related demolition, the project owner shall submit to the CPM for review and approval a copy of the lead-based paint survey conducted for the project site. The project manager shall also provide to the CPM a description of the procedures to be employed during demolition to ensure that lead-based paint debris and wastes are managed in accordance with all applicable LORS.	At least 30 days prior to the start of project-related demolition	1/16/11	GenOn	1/5/2011 Submittal 025	2011-0137	Approved 1/31/2011 No Paperwork		1/5/2011	1/31/2011 Verified in MCR No. 21
PC-1	WASTE-3	Provide the resume of a Registered PE or Geologist, who shall be available for consultation during site characterization (if needed), excavation and grading activities.	Submit resume to CPM for approval. Provide to the CPM a copy of the contract with the approved professional Engineer/Geologist prior to start of project related demolition	At least 30 days prior to site mobilization	1/16/11	KIEWIT	11/24/2010 Submittal 017	2010-1730	Approved 1/18/2011	12/1/2010	11/24/2010	1/18/2011 Verified in MCR No. 21
CONS	WASTE-4	If potentially contaminated soil is identified during site characterization, excavation, or grading at either the proposed site or linear facilities, as evidenced by discoloration, odor, detection by handheld instruments, or other signs, the Professional Engineer or Professional Geologist shall inspect the site, determine the need for sampling to confirm the nature and extent of contamination, and provide a written report to the project owner, representatives of DTSC, and the CPM stating the recommended course of action.	Submit any final reports filed by the Professional Engineer or Professional Geologist to the CPM. Project owner must notify the CPM within 24 hours of any orders issued to halt construction.	Within 5 days of their receipt	As required	KIEWIT	4/15/2011 Submittal 046 4/26/2011 10/14/2011 11/23/2011 Submittal 078 12/14/2011 Submittal 081 4/27/12 Submittal 100 5/18/2012 Submittal 104 5/23/12 Submittal 106 5/25/12 Submittal 107 6/05/2012		Oily dirt - East side Oily dirt-Middle of Power Block, 11/23/2011 addnl oil on East Side. Dec. 14 DTSC correspondence	4/15/11, 4/26/11, 10/14/11, 11/23/11, 12/14/11, 5/1/12, 5/18/12, 6/5/2012	4/15/11, 4/26/11, 10/14/11, 11/23/11, 12/14/11, 5/1/12, 5/18/12, 6/5/2012	Verified as accepted per Email notice from CEC MS. C Stora on 9/4/2012
PC-1	WASTE-5a	Comply with all applicable provisions of the city of Antioch's Construction and Demolition Debris Recycling Ordinance No. 1018- C-S., including preparation of a Construction and Demolition Debris Recycling Ordinance Waste Management Plan for all wastes generated during project demolition and construction activities.	At least 45 days prior to the start of project-related demolition, the project owner shall submit to the city a draft Construction and Demolition Debris Recycling Ordinance Waste Management Plan for review and comment. Submit to the CPM for review and approval the draft Waste Management Plan and any comments on the plan provided by the city	Not less than 15 days prior to the start of project-related demolition	4/16/13	KIEWIT	12/02/2010 Submittal 013 to City 12/03/2010 to CEC Resubmit to CEC 12/21/2010 Submittal 19 Submittal 023	2010-1784 2010-1927	Approved 1/31/2011 No Paperwork	11/18/2010	12/2/2010	1/31/2011 Verified MCR No.5 2/11/2011
CONS	WASTE-5b	Require all project contractors and subcontractors to adhere to the city's waste diversion requirements and provide to the project owner adequate documentation of the types and volumes of wastes generated, how the wastes were managed, and volumes of wastes diverted	Submit documentation to the city of Antioch, with copies to the CPM, demonstrating compliance with th diversion program requirements. The required documentation shall include a final completed Waste Management Plan (as set forth by the city ordinance) and all necessary receipts or records of measurement from entities receiving project wastes.	Not later than 30 days after completion of project construction	1/28/12	KIEWIT	Loaded recycle receipts to the City of Antioch FTP site on 6/26/2013, and set an email to Julie Haas-Wajdowicz asking for confirmation.		Submittal # 171		8/21/2013	
CONS	WASTE-5c	Comply with all applicable provisions of the city of Antioch's Construction and Demolition Debris Recycling Ordinance No. 1018- C-S	Provide documentation to the CPM that the project has satisfactorily complied with the city of Antioch Ordinance No. 1018-C-S	Prior to start of project Operation	12/23/11	KIEWIT	Submittal 166 sent to CEC on 6/26/2013		Submittal # 171		8/21/2013	
PC-1	WASTE-6a	Obtain a hazardous waste generator identification number from the United States Environmental Protection Agency prior to generating any hazardous waste during construction.	Keep a copy of the identification number on file at the project site and provide the number to the CPM.	Prior to start of construction	5/1/13	K&M	11/16/2010 Submittal 013 Submittal 054	2010-1665	Approved 7/22/2011		11/16/2010	CEC Acceptance 11/18/2010by J Caswell Re- Verified By Email from C Stora on 9/18/12
OPS	WASTE-6b	Obtain a hazardous waste generator identification number from the United States Environmental Protection Agency prior to generating any hazardous waste during operations.	Keep a copy of the identification number on file at the project site and provide the number to the CPM.	At least 30 days prior to commercial operation.	1/22/12	GenOn	11/16/10		Approved 7/22/2011			
COMM	WASTE-7a	Prepare an Operation Waste Management Plan for all wastes generated during operation of the facility	Submit the plan to the CPM for review and approval. The plan shall contain, at a minimum the items in the condition. submit any required revisions to the CPM within 20 days of notification from the CPM that revisions are necessary.	No less than 30 days prior to the start of project operation	11/23/11	GenOn	Submittal 152 sent to the CEC on 3/2/13				3/2/2013	

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OPS	WASTE-7b	Update the Operation Waste Management Plan as necessary to address current waste generation and management practices.	Document in each ACR the actual volume of wastes generated and the waste management methods used during the year; provide a comparison of the actual waste generation and management methods used to those proposed in the original Operation Waste Management Plan	Annually	Include in the ACR	GenOn			Reports submitted annually.			
OPS	WASTE-8	Ensure that all spills or releases of hazardous substances, hazardous materials, or hazardous waste are documented and cleaned up and that wastes generated from the release/spill are properly managed and disposed of, in accordance with all applicable federal, state, and local requirements.Document management of all unauthorized releases and spills of hazardous substances, hazardous materials, or hazardous wastes that occur on the project property or related linear facilities as specified in the condition	Provided to the CPM unauthorized release/spill documentation	Within 30 days of the date the release was discovered.	As required	K&G						
OPS	WASTE-9	Notify the CPM of any impending waste management-related enforcement action by any local, state, or federal authority 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 that may be related to management of project wastes	Notify the CPM in writing and provide a description and timeline for steps to be taken to address the action.	Within 10 days of becoming aware of an impending enforcement action	As required	K&G						
PC-1	WASTE-10	Ensure that the Marsh Landing Generating Station site is properly characterized so as to be able to identify hazardous wastes present at the project site. The project owner shall work closely with PG&E and Ensure that PG&E follows any and all directives issued by the California EPA Department of Toxic Substances Control (DTSC) to characterize, assess, and remediate the project site. No soil excavation or grading shall commence until the CPM gives approval	Provide the CPM for review and approval all project-related plans, results, and assessments provided by PG&E to DTSC and all obtainable project-related written correspondence between DTSC and PG&E	At least thirty (30) days prior to the start of any soil excavation or grading	2/23/11	GenOn	11/29/2010 Submittal 018 Submittal 024 Submittal 038 6/28/2011 Submittal 052 Submittal 053 Submittal 054	2010-1738 returned 12/3/2010 2011-0144	Pending DTSC approval of plan letter. Additional correspondence provided 1/5/2011 (Not plan letter.) Approved 2/7/2010 Addtnl sent 6/28/2011 Approved Corrective Measures Completion Report and Final Revision 7/27/2011		11/29/2010	2/7/2011 Verified MCR No.6 3/14/2011
PC-2	WORKER SAFETY-1	Submit a copy of the Project Construction Safety and Health Program containing the following construction plans: PPE, Exposure Monitoring, IIPP,EAP, and FPP. provide a copy of a letter to the CPM from the CCC Fire Protection District stating the fire department's comments on the Construction Fire Prevention Plan and Emergency Action Plan.	The Safety Program, PPE, IIPP, and Exposure Monitoring Program shall be submitted to the CEC CPM for review and approval; the EAP and FPP shall be submitted to the CCC Fire Protection District for review and comment prior to submittal to the CPM for approval.	At least 30 days prior to start of construction	4/1/13	KIEWIT	1/11/2011 Submittal 026	2011-0111	Approved (No Paperwork Given)	11/19/2010	1/11/2011	2/7/2011 Verified MCR No.6 3/14/2011
COMM	WORKER SAFETY-2	Prepare and submit an O&M Safety & Health Plan containing: an IIPP, EAP, HMMP, FPP, and PPE.	The Operations IIPP, EAP, PPE shall be submitted to the CEC CPM for review and comment; the EAP and FPP shall also be submitted to the CCC Fire Protection District for review and comment. Provide a copy of a letter to the CPM from the CCC Fire Protection District stating the fire department's comments on the Operations Fire Prevention Plan and Emergency Action Plan.	At least 30 days prior to first fire or commissioning	9/7/12	GenOn	10/9/12 Submittal 132 10/10/12 Submittal 133					
PC-1	WORKER SAFETY-3a	Provide a site Construction Safety Supervisor (CSS) who, by way of training and/or experience, is knowledgeable of power plant construction activities and relevant laws, ordinances, regulations, and standards; is capable of identifying workplace hazards relating to the construction activities; and has authority to take appropriate action to assure compliance and mitigate hazard	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.	At least 30 days prior to the start of construction	3/20/11	KIEWIT	11/18/2010 Submittal 13 Kiewit Submittal 015		CEC approval per email from J Caswell on 11/16/10		11/18/2010	2/4/2011 Verified MCR No.6 3/14/2011
CONS	WORKER SAFETY-3b	The CSS shall prepare and submit a monthly safety inspection that includes the info specified in the verification language of the condition.	Submit required info to the CPM.	Monthly	Include in MCR	KIEWIT			CEC approval per email from J Caswell on 11/16/10		Monthly 10th Busness day of each month	Currently No noted issues with any Monthly report
PC-2	WORKER SAFETY-4	Make payments to the CBO for the services of a Safety Monitor (in addition to the other services provided by the CBO). Safety monitor shall be responsible for verifying that the construction safety supervisor implements all required Cal/OSHA and CEC safety requirements.	Provide proof of agreement to fund the safety monitor services to the CPM for review and approval.	Prior to the start of construction	4/1/13	GenOn	1/31/2011 Submittal 031	2011-0220	Provided CBO letter confirming service were covered by GenOn 1/31/2011 Approved 4/2/2011	1/31/2011	1/21/2011	2/4/2011 Verified MCR No.6 3/14/2011

Mirant Marsh Landing CEC Compliance Matrix

Based on CEC Final Decision 08 - AFC -03

Color Code Key:

Pre-Const	Construction	Commiss.	Operations	To CEC or Agency	Approved by CEC

Sort Code	Cond. #	Description of Project Owner's Responsibilities	Verification/Action/Submittal Required by Project Owner	Timeframe	Date Due to CEC CPM	Lead Party	Date sent to CEC, CBO or agency	CEC Log # and Status	Comments	Date Submitted to GenOn	Date sent to CEC, CBO or agency2	Approved
PC-1	WORKER SAFETY-5a	Ensure that a portable automatic external defibrillator (AED) is located on site during demolition & construction, and shall implement a program to ensure that workers are properly trained in its use and that the equipment is properly maintained and functioning at all times.	Submit to the CPM proof that a portable automatic external defibrillator (AED) exists on site and a copy of the training and maintenance program for review and approval.	At least 30 days prior to the start of construction	12/2/10	KIEWIT	11/24/2010 Submittal 013 and 017 Kiewit		CEC approval per email from J Caswell on 11/16/10	11/30/2010	11/24/2010	2/4/2011 Verified MCR No.6 3/14/2011

2.0 Project Operating Status Summary

MLGS began commercial operations May 1, 2013.

The Units ran throughout the year when called upon by CAISO/PG&E. There were no significant operating status changes to the facility during the year.

A one week Summer Readiness outage was performed on each unit during March. Preventative Maintenance tasks were performed as well as some warranty work.

3.0 Documents Required by Specific Conditions

The following table lists the Conditions of Certification that require annual input.

Condition of Certification	Description	Items Included	Subsection
BIO-2	Designated Biologist Duties.	YES	3.1
HAZ-1	List of hazardous materials contained at the facility.	YES	3.2
HAZ-8	Site specific security plan.	YES	3.3
SOIL & WATER-5	Waste water reporting to DDSD.	YES	3.4
SOIL & WATER-6	Potable water usage.	YES	3.5
VIS-1	Surface treatment of structures and buildings	YES	3.6
VIS-2	Landscaping activities	YES	3.7
WASTE-7	Waste management plan	YES	3.8
BIO-8 *	CWF Annual Report	YES	3.9

Note: * added subsection starting with the 2016 ACR.

3.1 BIO-2

There were required Biological Resources Monitoring Reports for 2018 related to the Fire Pump System project. See attached report.

AECOM
300 Lakeside Drive
Suite 400
Oakland
CA 94612
aecom.com

March 12, 2019

Mr. Daniel A. Leach
NRG
Marsh Landing, LLC
3201-C Wilbur Avenue
Antioch, CA 94509

Subject: 2018 Biological Monitoring at Marsh Landing Generating Station (08-AFC-03C), Fire Pump Project

Dear Mr. Leach:

This letter report documents biological resources monitoring and compliance with the biological COCs for the Fire Pump Project, which is the entirety of biological monitoring conducted by AECOM at Marsh Landing Generating Station (MLGS) in 2018. Construction of the Fire Pump Project is nearly complete, but continues into 2019. This interim report will be updated following completion of construction in 2019.

Background and Introduction

In 2010, the California Energy Commission (CEC) certified MLGS, and the Bay Area Air Quality Management District issued the Authority to Construct for MLGS. MLGS began commercial operations in 2013. In 2014, NRG filed a petition with the CEC requesting a modification of the Final Decision for MLGS to allow installation of a diesel backup generator; a new diesel fire pump engine; and 150 feet of fire loop piping, with a maximum depth approximately 5 feet below ground surface. CEC approved these project modifications in November 2014. The diesel generator was installed in 2015. NRG began construction of the new diesel fire pump and fire loop piping (known as the Fire Pump Project [Project]) in September 2018 (Figure 1). AECOM assisted NRG with biological support and compliance with implementation of biological Conditions of Certification (COCs) for the Project.

Fire Pump Project

Construction of the Project started at the beginning of September. All construction and staging took place within the limits of the already developed MLGS site (Figure 1). Major 2018 Project construction activities included:

- excavating potholing for underground utilities;
- removal and stockpiling of rock/aggregate base;
- excavating relief trenches;
- assembling pile driving equipment and drive piles;
- backfilling relief trenches;
- constructing forms and rebar for foundation and excavation for pipe supports;
- pouring foundation and pipe supports;
- installing above and below ground piping;
- pulling electrical in existing conduits;
- setting enclosure on foundation;
- conducting mechanical and electrical connections; and
- pouring slurry and backfilling excavated areas with pipelines.

Figure 1. Approximate location of Project work activities.

Designated Biologist and Biological Monitors

Consistent with the COCs for MLGS, AECOM biologists who performed duties as Designated Biologist or biological monitors for the Project received Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP) and Worker Environmental Awareness Program (WEAP) training and were approved by the CEC. I (Jon Stead) have been the Designated Biologist for MLGS since it was certified by the CEC and continue in that role for the Project. The lead biological monitor (Joe Bandel) and a second biological monitor (Derek Jansen) also were previously approved by the CEC and have worked on earlier phases at MLGS. Ann Crisp, Staff Biologist with the CEC, approved two additional biological monitors for MLGS (Joe Broberg and Jeff Lemire) via email on August 31, 2018.

Joe Bandel, Derek Jansen, and I have received the BRMIMP and WEAP training for previous work that began in 2011 with the construction of the MLGS facility. I trained Jeff Lemire on the WEAP and BRMIMP on September 4, 2018. Joe Broberg has not yet been utilized as a biological monitor at the MLGS site.

Preconstruction Biology and Nesting Bird Surveys

On September 4, 2018, Joe Bandel, Jeff Lemire, and I conducted a biological reconnaissance survey of the entire Project area and vicinity. Figure 1 shows the approximate locations of work areas associated with the Project. The polygon labelled “Installation of Pumps and Piping” includes the area where most of the Project activities occurred, including primary staging, trenching for installation of pipes, and pile driving for the pump pad support structure. We walked the Project footprint, staging, and adjacent areas to identify any sensitive biological resources that may require avoidance or protection during construction. We confirmed that all disturbances will occur in areas already paved or graveled, and that there are no sensitive biological resources in the work areas (Attachment A, Photos 1 through 3).

Construction did not begin until after the bird nesting season (March 1 through August 31; see BRMIMP Chapter 7) had ended. Nonetheless, in addition to looking for nesting activity on September 4, we opted for caution and conducted a single nesting survey prior to initiation of construction on the morning of September 5. The survey was initiated at 6:45 a.m., and no nesting activity or bird nests were observed near the Project area.

Biological Monitoring Effort

As prescribed by the BRMIMP, AECOM biologists began with daily monitoring during Project initiation and the first ground disturbance. When it was apparent from initial monitoring that the potential for the Project to result in conflicts with biological resources was very low, AECOM requested a commensurate reduction in the level of effort of biological monitoring. Dan Leach (NRG) submitted this request to Ann Crisp at the CEC on September 11, 2018, and she approved it on September 12, 2018. The level of effort for biological monitoring was approved as outlined below:

Outline of Proposed Biological Monitoring Activities

1. Biological monitoring during mobilization days for pile driving and trenching, with a second day of monitoring if pile driving and trenching are not initiated on the same day as their on-site mobilization (i.e., monitoring during mobilization/first day of pile driving and trenching, so that any potential conflicts with wildlife can be avoided).
2. Weekly inspections during the remainder of construction.
3. Monitoring inspection upon Project completion, but before the contractor has been dismissed from the site.
4. Final monitoring inspection after completion and contractor dismissal to record post-construction conditions.

Biological monitors Derek Jansen or Joe Bandel were present for the first day of trenching (see Attachment A, Photo 4: September 14, 2018) and the first day of pile driving (see Attachment A, Photos 5 and 6: September 20, 2018) and thereafter for weekly inspections (September 27 through December 28, 2018).

Summary of Monitoring Activities

This section presents a summary of biological monitoring activities conducted for the Project. Biological monitoring logs documenting all monitoring visits made to the Project are provided in Attachment B. Biological monitors Joe Bandel, Derek Jansen, Jeff Lemire, and I attended a safety and environmental orientation meeting at the MLGS administration building and then conducted a preconstruction sweep and nesting bird survey of the site (see Attachment A, Photos 1 through 3) prior to the start of construction activities on September 4, 2018. No sensitive biological resources or nesting bird activity were found during the survey.

Biological monitoring began with the start of on-site construction, after the bird survey on September 5, 2018. On September 5 and 6, the biological monitors observed removal of aggregate base from the work area and potholing (followed by backfilling) to confirm locations of underground utilities prior to trenching and pile driving (see Attachment A, Photos 7 and 8).Biologists were on site for the excavation of relief trenches (see Attachment A, Photo 4), and the first day of pile-driving (see Attachment A, Photo 6). Later, biologists would be present for other construction activities during weekly site inspections, including constructing the foundation for the fire pumps station (see Attachment A, Photos 9 and 10), constructing concrete pipe supports (see Attachment A, Photo 11), excavating trenches for underground piping (see Attachment A, Photo 12), and assembling the piping (see Attachment A, Photos 13 through 15).

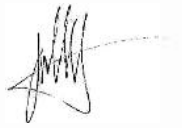
During biological monitoring inspections, biologists noted the presence of trenches and excavations that had either a sloped earthen ramp or a wooden plank ramp inserted for escape of wildlife (see Attachment A, Photos 16 and 17). All open excavations observed during the weekly inspections contained either earthen or wooden plank escape ramps so that wildlife could escape, were they to fall in. No wildlife was ever observed trapped in any of the excavations.

During a monitoring inspection on November 20, 2018, biologist Joe Bandel noticed that several stockpiles of sand and gravel were not covered or safeguarded from erosion by stormwater best management practices (BMPs). Joe notified NRG about the stockpiles and provided photographs of the locations (see Attachment A, Photos 18 through 20). By the next day, all the stockpiles previously identified were appropriately covered and protected from erosion by stormwater BMPs (see Attachment A, Photos 21 through 23). NRG had promptly addressed the stockpiles ahead of the first storm of the wet season.

By the end of 2018, most of the construction activities had been completed, most of the excavations had been backfilled and, and the fire pump looked nearly complete (see Attachment A, Photo 24). Throughout the entire 2018 construction period, no conflicts with sensitive biological resources or other biological concerns were identified. There was still some minor work needed in some small excavations near the fire pump station, and the fire pump system needed to be tested. The last steps of construction are scheduled to be completed in 2019, and this report will be updated when the Project is complete.

Please let me know if you have any questions or require additional information.

Sincerely,



Jonathan Stead
CEC Designated Biologist
AECOM

Attachment A – Site Photographs
Attachment B – Biological Monitoring Logs

ATTACHMENT A

SITE PHOTOGRAPHS

Photo 1: Pumps and piping work area during pre-construction survey.

Photo 2: Overflow staging work area during pre-construction survey.

Photo 3: Aboveground pipe work area during pre-construction survey.

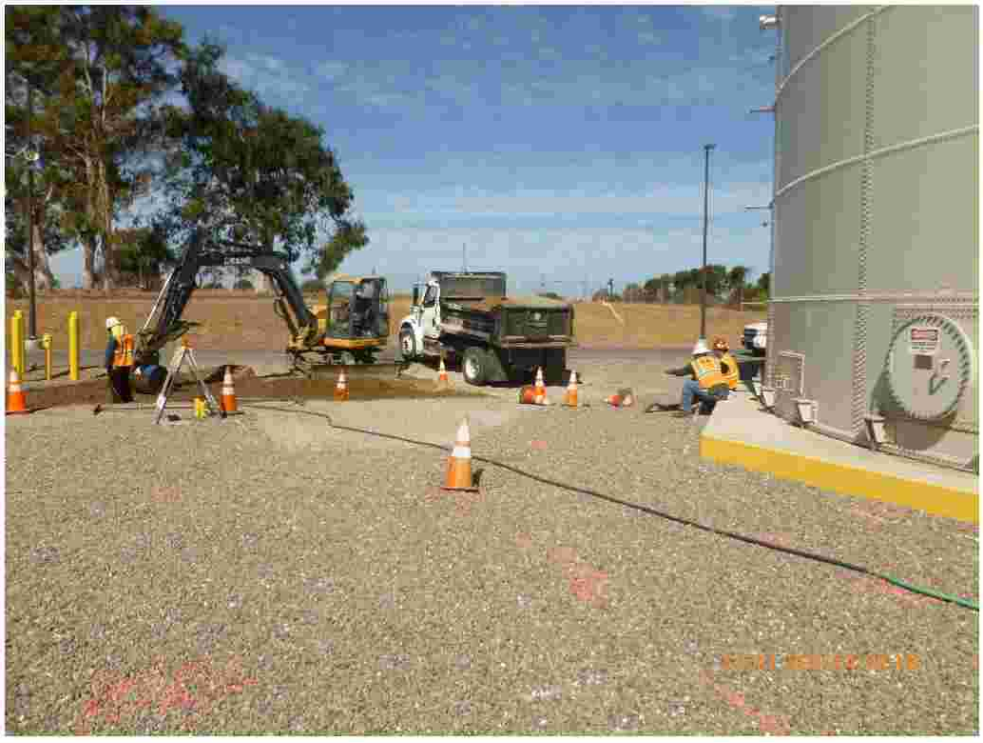


Photo 4: Excavation of relief trenches and foundation pad for the fire pump on September 14, 2018.

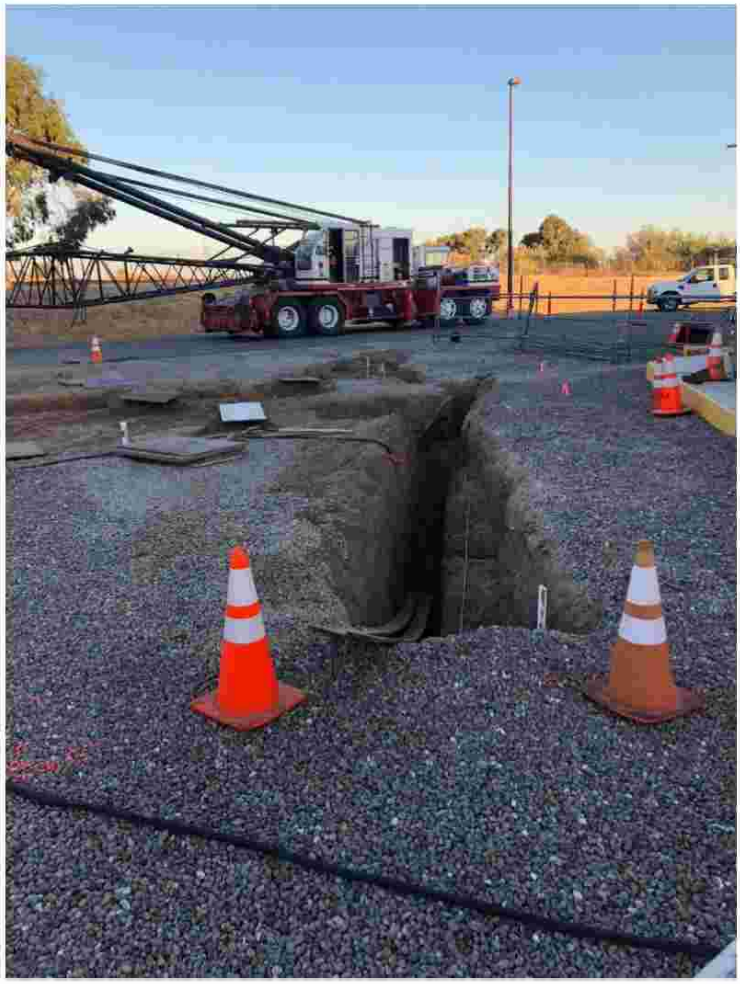


Photo 5: Relief trenches for pile driving on September 20, 2018.

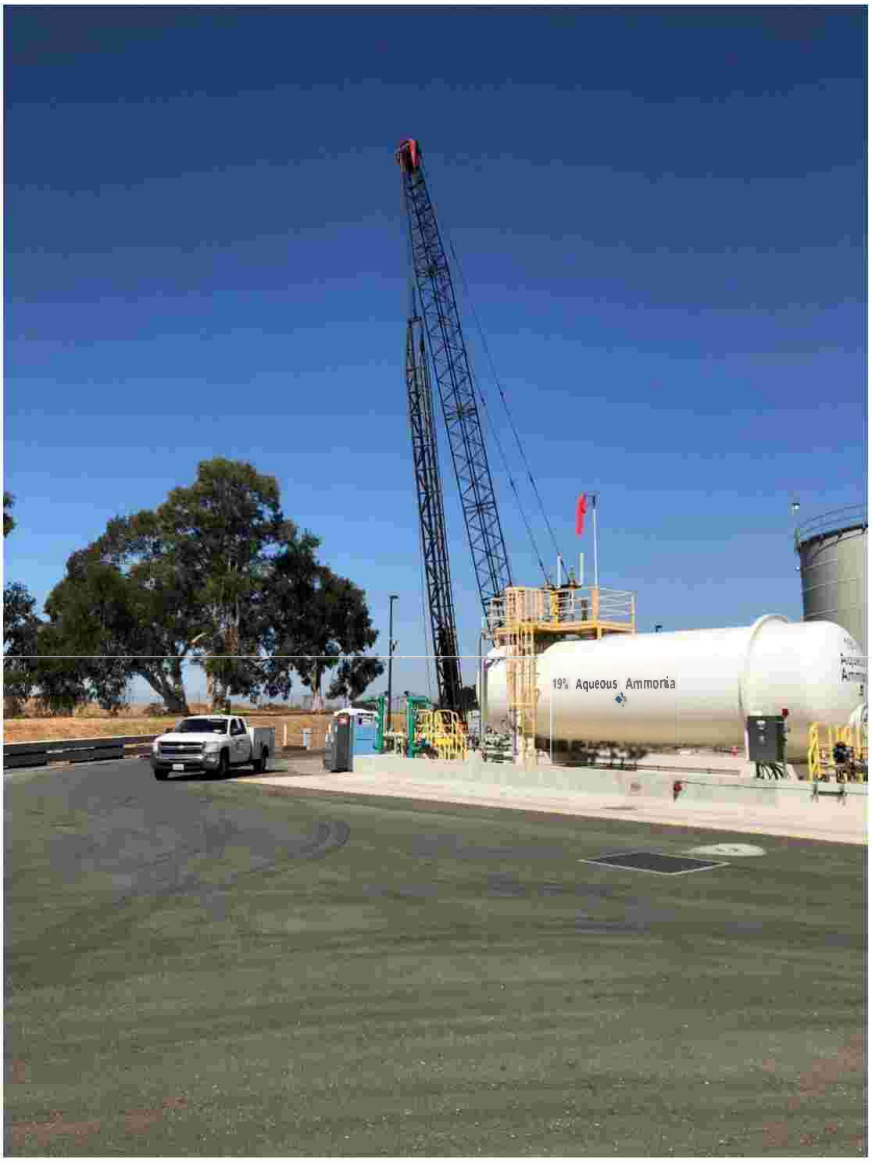


Photo 6: Assembled pile driving crane on September 20, 2018.

Photos 7 and 8. Photographs showing removal of aggregate base and backfilled potholes in the Project area.

Photo 9: Foundation pad for fire pump station on September 27, 2018.

Photo 10: Forms and rebar being constructed for the fire pump foundation pad on October 4, 2018.

Photo 11: Forms and rebar being constructed for concrete pipe supports on October 25, 2018.

Photo 12: Excavation for pipeline on November 1, 2018.

Photo 13: Pipe being assembled on November 13, 2018.

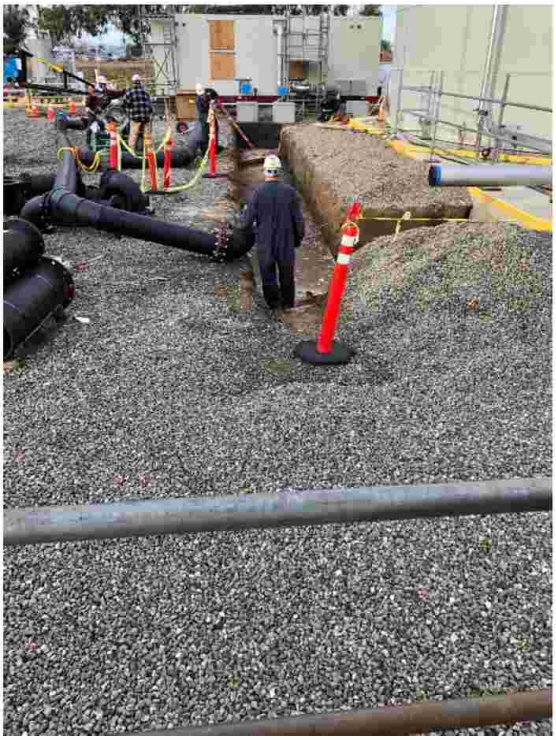


Photo 14: More assembly of pipe near the fire pump on November 30, 2018.

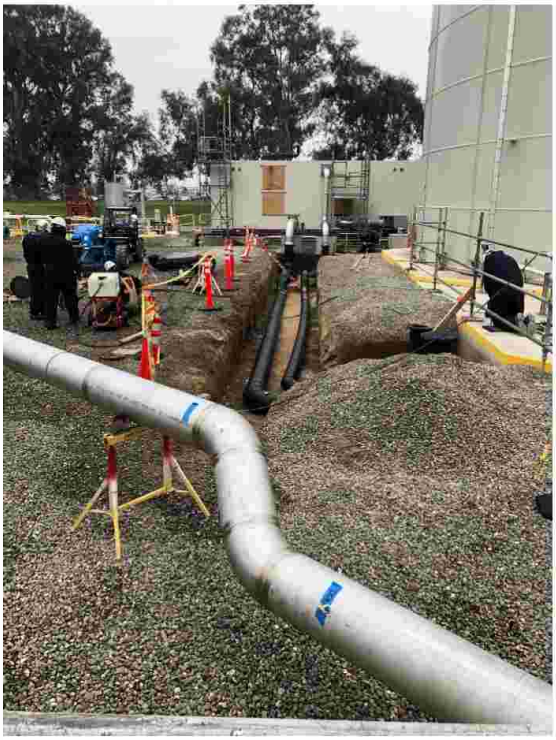


Photo 15: Further pipe work near the fire pump station on December 14, 2018.

Photo 16: Excavation with escape ramp placed inside on October 12, 2018.

Photo 17: Excavation with escape ramp for wildlife, October 18, 2018.

Photos 18 through 20: Stockpiles of sand and gravel that were uncovered on November 20, 2018.

Photos 21 through 23: Stockpiles are all covered ahead of storms on November 21, 2018.

Photo 24: Area for the pipeline has been backfilled and cemented on December 28, 2018.

ATTACHMENT B

MONITORING LOGS

Marsh Landing Generating Station	Date: 9/4/18
Monitor: Joe Bandel, Jon Stead, Jeff Lemire	Time: 0900 - 11:15
Weather: Sunny, mostly clear, cool & mild.	

Photo Numbers:

Activity that requires monitor's presence:
Pre-Activity Survey / Nesting bird survey

Description of Construction Activities Observed:
None, construction has not yet begun

Compliance Observations and Issues:

ESA Fencing: N/A

Wildlife Pitfalls/Traps/Pipes: N/A

Nesting Birds: None observed

Coordination with Construction Personnel: NRG personnel Dan Leach and David Frandsen showed us the proposed work areas.

Other Compliance Issues:

Wildlife Species List for Day:
- red-tailed hawk
- turkey vulture
- black phoebe
- cliff swallow
- house finch

Daily Monitoring Checklist
(Check if in compliance)

Date 9/4/15

- N/A ☐ ESA fencing or a physical barrier is separating sensitive resources from active work areas and is in good condition.
- N/A ☐ All trenches left open overnight have an escape ramp or are completely covered
- ☑ No new bird nesting activity observed/known nests buffered appropriately
- N/A ☐ Straw wattles and/or silt fence are in place and in good condition
- N/A ☐ Any areas of disturbed soil with slopes off the site are stabalized to reduce erosion potential during and after construction
- ☑ Speed limit signs and messages are in place and accurate
- N/A ☐ Equipment storage and parking is limited to the project site and/or designated staging areas
- ☑ Deliberate feeding of wildlife is not occurring
- ☑ Food-related trash is being disposed of in closed containers and removed weekly
- ☑ No firearms are present on site (except security personnel)
- ☑ No pets are present on site

Notes: This survey consisted of a reconnaisance survey and initial nesting bird survey. The proposed work areas for the fire pump and associated pipes are all in paved or gravel covered areas. No vegetation present in work areas. There are potential nesting areas including ground surfaces (gravel + disturbed areas for killdeers) + structures (such as outside of tanks) in the project area. Additionally there are other nesting areas within the 150 feet buffer such as the grove of eucalyptus trees to the west of project site. No nest were observed. No sensitive biological resources were observed

URS
1333 Broadway, Suite 800
Oakland, CA 94612

Biological Monitoring Log

Marsh Landing Generating Station	Date: 9/5/18
Monitor: Jeff Lemire	Time: 645 - 1400
Weather: Clear, H: 82 L: 57, wind: 9 MPH W	

Photo Numbers: JL 1, 2, 3 & 4

Activity that requires monitor's presence: AB / rock removal & stock piling

Description of Construction Activities Observed: ALB crew used Deere 210 LJ front loader to remove AB from around south side of Rainwater tank and placed in dump truck. AB hauled to staging area and stockpiles onsite.

Compliance Observations and Issues: Crews used ~~water~~ buffalo for dust mitigation.

ESA Fencing: N/A

Wildlife Pitfalls/Traps/Pipes: N/A

Nesting Birds: No nests observed.

Coordination with Construction Personnel: Met prior to construction activities to go over schedule and work plan.

Other Compliance Issues: N/A

Wildlife Species List for Day: Bank Swallow, Western Scrub jay, Caspian tern, Anna's Hummingbird, Turkey Vulture, Red-tailed Hawk.

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Oakland, CA 94612

Daily Monitoring Checklist **Date** 9/5/18
(Check if in compliance)

- N/A ESA fencing or a physical barrier is separating sensitive resources from active work areas and is in good condition.
- N/A All trenches left open overnight have an escape ramp or are completely covered
- ☑ No new bird nesting activity observed/known nests buffered appropriately
- N/A Straw wattles and/or silt fence are in place and in good condition
- N/A Any areas of disturbed soil with slopes off the site are stabalized to reduce erosion potential during and after construction
- ☑ Speed limit signs and messages are in place and accurate
- ☑ Equipment storage and parking is limited to the project site and/or designated staging areas
- ☑ Deliberate feeding of wildlife is not occurring
- ☑ Food-related trash is being disposed of in closed containers and removed weekly
- ☑ No firearms are present on site (except security personnel)
- ☑ No pets are present on site

Notes: Crews removed approximately 6-8 inches of AB material and stockpiled On-site. Crew perform pipe location and begin trenching tomorrow, 9/6.

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Oakland, CA 94612

Biological Monitoring Log

Marsh Landing Generating Station	Date: 9-6-18
Monitor: Joe Bandel	Time: 0940 – 1315
Weather: Sunny, clear, cool, temps in low 60's	

Photo Numbers:

Activity that requires monitor's presence:
Potholing + excavation for relief trenches

Description of Construction Activities Observed:
Potholing excavation and backfill of potholes

Compliance Observations and Issues:

ESA Fencing: N/A

Wildlife Pitfalls/Traps/Pipes: Potholes were backfilled; there are pits or traps

Nesting Birds: None observed

Coordination with Construction Personnel: Joe Moura determined that no more excavation or ground disturbance at 2:50 pm. Will update after 2pm meeting when excavation + ground disturbance will continue/resume

Other Compliance Issues: None

Wildlife Species List for Day:
turkey vultore
cliff swallow
rock pigeon
Caspian tern
band-tailed pigeon

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Oakland, CA 94612

Daily Monitoring Checklist **Date** 9-6-18
(Check if in compliance)

N/A ☐ ESA fencing or a physical barrier is separating sensitive resources from active work areas and is in good condition.

☑ All trenches left open overnight have an escape ramp or are completely covered

☑ No new bird nesting activity observed/known nests buffered appropriately

N/A ☐ Straw wattles and/or silt fence are in place and in good condition

N/A ☐ Any areas of disturbed soil with slopes off the site are stabalized to reduce erosion potential during and after construction

☑ Speed limit signs and messages are in place and accurate

☑ Equipment storage and parking is limited to the project site and/or designated staging areas

☑ Deliberate feeding of wildlife is not occurring

☑ Food-related trash is being disposed of in closed containers and removed weekly

☑ No firearms are present on site (except security personnel)

☑ No pets are present on site

Notes:

URS
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Oakland, CA 94612

Biological Monitoring Log

Marsh Landing Generating Station	Date: 9/12/18
Monitor: Joe, Bandy	Time: 0900 - 1100
Weather: Partly Cloudy, breezy, temps 19°C	

Photo Numbers:

Activity that requires monitor's presence:

None, construction delayed

Description of Construction Activities Observed:

None observed; construction delayed

Compliance Observations and Issues:

ESA Fencing: NA

Wildlife Pitfalls/Traps/Pipes: None

Nesting Birds: None

Coordination with Construction Personnel: N/A

Other Compliance Issues: None

Wildlife Species List for Day:

- red-tailed hawk
- turkey vulture
- rock pigeon

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Oakland, CA 94612

Daily Monitoring Checklist **Date** 4/12/18
(Check if in compliance)

N/A ☐ ESA fencing or a physical barrier is separating sensitive resources from active work areas and is in good condition.

N/A ☐ All trenches left open overnight have an escape ramp or are completely covered

☑ No new bird nesting activity observed/known nests buffered appropriately

N/A ☐ Straw wattles and/or silt fence are in place and in good condition

☑ Any areas of disturbed soil with slopes off the site are stabalized to reduce erosion potential during and after construction

☑ Speed limit signs and messages are in place and accurate

☑ Equipment storage and parking is limited to the project site and/or designated staging areas

☑ Deliberate feeding of wildlife is not occurring

☑ Food-related trash is being disposed of in closed containers and removed weekly

☑ No firearms are present on site (except security personnel)

☑ No pets are present on site

Notes:

URS
1333 Broadway, Suite 800
Oakland, CA 94612

Biological Monitoring Log

Marsh Landing Generating Station	Date: Sept. 14. 2018
Monitor: Derek Jansen	Time: 925 - 1530hrs
Weather: Sunny, Partly Cloudy, 55-79°F WNW 10-15mph	

Photo Numbers:
92% 339.5599

Activity that requires monitor's presence: Pre-activity survey, survey, excavation

Description of Construction Activities Observed:
- ALB excavating for survey and pile driving footing.
- Fire Pump endosure foundation.

Compliance Observations and Issues: N/A

ESA Fencing: N/A

Wildlife Pitfalls/Traps/Pipes: N/A

Nesting Birds: N/A

Coordination with Construction Personnel: ALB, inc General Engineering Dan Leach showed the work areas.

Other Compliance Issues: N/A

Wildlife Species List for Day:
- Red-tailed hawk
- house finch
- killdeer
- black phoebe
- CA scrub jay.
- Common raven
- Turkey Vulture
- Anna's hummingbird
- Barn swallow
- morning dove
- Rock Dove.

URS
1333 Broadway, Suite 800
Oakland, CA 94612

Daily Monitoring Checklist **Date** Sept 14 08

(Check if in compliance)

- N/A ESA fencing or a physical barrier is separating sensitive resources from active work areas and is in good condition.
- N/A All trenches left open overnight have an escape ramp or are completely covered
- N/A No new bird nesting activity observed/known nests buffered appropriately
- N/A Straw wattles and/or silt fence are in place and in good condition
- N/A Any areas of disturbed soil with slopes off the site are stabalized to reduce erosion potential during and after construction
- ☑ Speed limit signs and messages are in place and accurate
- ☑ Equipment storage and parking is limited to the project site and/or designated staging areas
- N/A Deliberate feeding of wildlife is not occurring
- ☑ Food-related trash is being disposed of in closed containers and removed weekly
- ☑ No firearms are present on site (except security personnel)
- ☑ No pets are present on site

- No major excavation.

Notes:

0745 hrs - arrived on site and met Dan Leach for safety training/orientation.

1045 hrs - Reviewed work area w/ Dan Leach. HLB excavated drain rock down 6 inches to 1 foot by 15 feet by 25 foot area.

1045 - 1445 hrs - Survey crew staked work area

1445 - 1530 hrs - HLB confirmed excavation/limits from survey marks

URS
1333 Broadway, Suite 800
Oakland, CA 94612

Biological Monitoring Log

Marsh Landing Generating Station	Date: 9/20/13
Monitor: Joe Bandel	Time: 0700 - 1200
Weather: Sunny, clear, mild	

Photo Numbers:

Activity that requires monitor's presence:

Pile Driving

Description of Construction Activities Observed:

Work crews assembled Crane & pile driving equipment.
Began pile driving in the afternoon

Compliance Observations and Issues:

ESA Fencing: NA

Wildlife Pitfalls/Traps/Pipes: Relief trenches are present that have ramps for wildlife escape

Nesting Birds: No Nests

Coordination with Construction Personnel: None

Other Compliance Issues:

Wildlife Species List for Day:

- band-tailed pigeon
- American Crow
- black-tailed jackrabbit
- killdeer
- western scrub-jay
- rock pigeon

URS
1333 Broadway, Suite 800
Oakland, CA 94612

Daily Monitoring Checklist **Date** 9/20/18
(Check if in compliance)

N/A ☐ ESA fencing or a physical barrier is separating sensitive resources from active work areas and is in good condition.

☑ All trenches left open overnight have an escape ramp or are completely covered

☑ No new bird nesting activity observed/known nests buffered appropriately

N/A ☐ Straw wattles and/or silt fence are in place and in good condition

☑ Any areas of disturbed soil with slopes off the site are stabalized to reduce erosion potential during and after construction

☑ Speed limit signs and messages are in place and accurate

☑ Equipment storage and parking is limited to the project site and/or designated staging areas

☑ Deliberate feeding of wildlife is not occurring

☑ Food-related trash is being disposed of in closed containers and removed weekly

☑ No firearms are present on site (except security personnel)

☑ No pets are present on site

Notes:

Biological Monitoring Log

Marsh Landing Generating Station	Date: 9/27/18
Monitor: Joe Bundel	Time: 0900 - 1000
Weather: Sunny, clear, mild, temps in 70s	

Photo Numbers:

Activity that requires monitor's presence:

Construction of Fire pump facilities

Description of Construction Activities Observed:

Construction of piles is complete. Relief trenches have been backfilled. No activity occured during the survey.

Compliance Observations and Issues:

ESA Fencing: N/A

Wildlife Pitfalls/Traps/Pipes: None; the relief trenches have been backfilled.

Nesting Birds: None

Coordination with Construction Personnel: None

Other Compliance Issues: None

Wildlife Species List for Day:

- rock pigeon
- western scrub jay
- cliff swallow
- red-tailed hawk
- turkey vulture

URS
1333 Broadway, Suite 800
Oakland, CA 94612

Daily Monitoring Checklist **Date** 9/27/18
(Check if in compliance)

NA ☐ ESA fencing or a physical barrier is separating sensitive resources from active work areas and is in good condition.

☑ All trenches left open overnight have an escape ramp or are completely covered

☑ No new bird nesting activity observed/known nests buffered appropriately

NA ☐ Straw wattles and/or silt fence are in place and in good condition

☑ Any areas of disturbed soil with slopes off the site are stabalized to reduce erosion potential during and after construction

☑ Speed limit signs and messages are in place and accurate

☑ Equipment storage and parking is limited to the project site and/or designated staging areas

☑ Deliberate feeding of wildlife is not occurring

☑ Food-related trash is being disposed of in closed containers and removed weekly

☑ No firearms are present on site (except security personnel)

☑ No pets are present on site

Notes:

URS
1333 Broadway, Suite 800
Oakland, CA 94612

Biological Monitoring Log

Marsh Landing Generating Station	Date: 10/4/2018
Monitor: Joe Bandel	Time: 0855 – 1010
Weather: Partly cloudy, slight breeze, mild, temps in 60's	

Photo Numbers:

Activity that requires monitor's presence:
Construction of forms & rebar cage for foundation

Description of Construction Activities Observed:
Workers tying rebar into place. Workers assembling the crane in the staging area.

Compliance Observations and Issues:

ESA Fencing: NA

Wildlife Pitfalls/Traps/Pipes: No pitfalls or trenches present

Nesting Birds: No nests observed.

Coordination with Construction Personnel: None

Other Compliance Issues: None

Wildlife Species List for Day:
- American Crow
- Turkey Vulture
- Say's Phoebe
- black phoebe
- rock pigeon
- cave swallow
- western fence lizard

URS
1333 Broadway, Suite 800
Oakland, CA 94612

Daily Monitoring Checklist **Date** 10/4/18
(Check if in compliance)

N/A ☐ ESA fencing or a physical barrier is separating sensitive resources from active work areas and is in good condition.

☑ All trenches left open overnight have an escape ramp or are completely covered

☑ No new bird nesting activity observed/known nests buffered appropriately

N/A ☐ Straw wattles and/or silt fence are in place and in good condition

☑ Any areas of disturbed soil with slopes off the site are stabalized to reduce erosion potential during and after construction

☑ Speed limit signs and messages are in place and accurate

☑ Equipment storage and parking is limited to the project site and/or designated staging areas

☑ Deliberate feeding of wildlife is not occurring

☑ Food-related trash is being disposed of in closed containers and removed weekly

☑ No firearms are present on site (except security personnel)

☑ No pets are present on site

Notes:

URS
1333 Broadway, Suite 800
Oakland, CA 94612

Biological Monitoring Log

Marsh Landing Generating Station	Date: 10/12/18
Monitor: Joe Bandel	Time: 0820 - 0930
Weather: Sunny, clear, no wind, temps in 60's	

Photo Numbers:

Activity that requires monitor's presence:
Checking on progress of construction for Fire Pump

Description of Construction Activities Observed:
No construction activity.

Compliance Observations and Issues:

ESA Fencing: NA

Wildlife/Pitfalls/Traps/Pipes: Many trenches/pits about 2-3 feet deep are present for removing bollards, however escape ramps were present in all the trenches/pits.

Nesting Birds:

Coordination with Construction Personnel: None

Other Compliance Issues: None

Wildlife Species List for Day:
- Rock pigeon
- house finch
- band-tailed pigeon
- Western scrub jay
- western gull
- bushtit
- northern mockingbird
- American crow

URS
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Daily Monitoring Checklist **Date** 10/12/18
(Check if in compliance)

- [ ] N/A — ESA fencing or a physical barrier is separating sensitive resources from active work areas and is in good condition.
- [x] All trenches left open overnight have an escape ramp or are completely covered
- [x] No new bird nesting activity observed/known nests buffered appropriately
- [x] Straw wattles and/or silt fence are in place and in good condition
- [x] Any areas of disturbed soil with slopes off the site are stabalized to reduce erosion potential during and after construction
- [x] S peed limit signs and messages are in place and accurate
- [x] Equipment storage and parking is limited to the project site and/or designated staging areas
- [x] Deliberate feeding of wildlife is not occurring
- [x] Food-related trash is being disposed of in closed containers and removed weekly
- [x] No firearms are present on site (except security personnel)
- [x] No pets are present on site

Notes:

URS
1333 Broadway, Suite 800
Oakland, CA 94612

Biological Monitoring Log

Marsh Landing Generating Station	Date: 10/18/18
Monitor: Joe Bandel	Time: 1155 – 1310
Weather: Sunny, clear, mild breeze, temps in 60s	

Photo Numbers:

Activity that requires monitor's presence:
No work occurring; weekly site visit to check on progress of work that just occurred currently

Description of Construction Activities Observed:
Trenching for pipe foundations occured earlier in the week. No construction activities observed. Also a trailer is staged north of the work area.

Compliance Observations and Issues:

ESA Fencing: N/A

Wildlife Pitfalls/Traps/Pipes: Trenches + pits needed for pipe foundations are between 1-3 ft. deep. All trenches have escape ramps for wildlife

Nesting Birds: None

Coordination with Construction Personnel: None

Other Compliance Issues: None

Wildlife Species List for Day:
- rock pigeon
- band-tailed pigeon
- black-tailed jackrabbit
- western fence lizard
- western scrub-jay
- house finch
- American Crow
- Great blue heron

URS
1333 Broadway, Suite 800
Oakland, CA 94612

Daily Monitoring Checklist **Date** 10/18/18
(Check if in compliance)

- [ ] NA ESA fencing or a physical barrier is separating sensitive resources from active work areas and is in good condition.
- [x] All trenches left open overnight have an escape ramp or are completely covered
- [x] No new bird nesting activity observed/known nests buffered appropriately
- [x] Straw wattles and/or silt fence are in place and in good condition
- [x] Any areas of disturbed soil with slopes off the site are stabalized to reduce erosion potential during and after construction
- [x] Speed limit signs and messages are in place and accurate
- [x] Equipment storage and parking is limited to the project site and/or designated staging areas
- [x] Deliberate feeding of wildlife is not occurring
- [x] Food-related trash is being disposed of in closed containers and removed weekly
- [x] No firearms are present on site (except security personnel)
- [x] No pets are present on site

Notes:

URS
1333 Broadway, Suite800
Oakland, CA 94612

Biological Monitoring Log

Marsh Landing Generating Station	Date: 10/25/18
Monitor: Joe Bandel	Time: 0805 - 0940
Weather: Sunny, clear, few high clouds, light breeze	

Photo Numbers:

Activity that requires monitor's presence:
Construction of pipe support platforms next to fire pump station

Description of Construction Activities Observed:
Workers finishing construction of forms and preparing the area for concrete pour later in the day.

Compliance Observations and Issues:

ESA Fencing: N/A

Wildlife Pitfalls/Traps/Pipes: Only one excavation near the ballards is present which contains 2 escape ramps for wildlife.

Nesting Birds: None

Coordination with Construction Personnel: None

Other Compliance Issues: None

Wildlife Species List for Day:
- Western Scrub jay
- Rock pigeon
- House finch
- Common raven
- Mourning dove
- Feral cat
- American crow
- Northern goshawk
- Western meadowlark
- Band-tailed pigeon
- Anna's hummingbird

URS
1333 Broadway, Suite 800
Oakland, CA 94612

Daily Monitoring Checklist **Date** 10/25/18
(Check if in compliance)

- [ ] ESA fencing or a physical barrier is separating sensitive resources from active work areas and is in good condition. N/A
- [x] All trenches left open overnight have an escape ramp or are completely covered
- [x] No new bird nesting activity observed/known nests buffered appropriately
- [x] Straw wattles and/or silt fence are in place and in good condition
- [x] Any areas of disturbed soil with slopes off the site are stabalized to reduce erosion potential during and after construction
- [x] Speed limit signs and messages are in place and accurate
- [x] Equipment storage and parking is limited to the project site and/or designated staging areas
- [x] Deliberate feeding of wildlife is not occurring
- [x] Food-related trash is being disposed of in closed containers and removed weekly
- [x] No firearms are present on site (except security personnel)
- [x] No pets are present on site

Notes:

URS
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Oakland, CA 94612

Biological Monitoring Log

Marsh Landing Generating Station	Date: 11/1/18
Monitor: Joe Bandel	Time: 1025 – 1135
Weather: Sunny, high clouds, no wind, warm temps 70's	

Photo Numbers:

Activity that requires monitor's presence:
Excavation for pipelines at Fire pump work site

Description of Construction Activities Observed:
Excavation for pipeline next to fire pump station with mini excavator

Compliance Observations and Issues:

ESA Fencing: N/A

Wildlife Pitfalls/Traps/Pipes: Excavations for pipelines around fire pump station have escape ramps for wildlife

Nesting Birds: None

Coordination with Construction Personnel:

Other Compliance Issues:

Wildlife Species List for Day:
- rock pigeons
- western meadowlarks
- turkey vulture
- cliff swallow
- black phoebe
- American pipit
- Say's phoebe

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Daily Monitoring Checklist **Date** 11/1/18
(Check if in compliance)

NA ESA fencing or a physical barrier is separating sensitive resources from active work areas and is in good condition.

- ☑ All trenches left open overnight have an escape ramp or are completely covered
- ☑ No new bird nesting activity observed/known nests buffered appropriately
- ☑ Straw wattles and/or silt fence are in place and in good condition
- ☑ Any areas of disturbed soil with slopes off the site are stabalized to reduce erosion potential during and after construction
- ☑ Speed limit signs and messages are in place and accurate
- ☑ Equipment storage and parking is limited to the project site and/or designated staging areas
- ☑ Deliberate feeding of wildlife is not occurring
- ☑ Food-related trash is being disposed of in closed containers and removed weekly
- ☑ No firearms are present on site (except security personnel)
- ☑ No pets are present on site

Notes:

URS
1333 Broadway, Suite 800
Oakland, CA 94612

Biological Monitoring Log

Marsh Landing Generating Station	Date: 11/8/18
Monitor: Joe Bandel	Time: 9:15 - 10:30
Weather: Sunny, clear, temps in 60s - 70s	

Photo Numbers:

Activity that requires monitor's presence:
Construction of pipeline in trenches next to fire pump station

Description of Construction Activities Observed:
Pipeline work at excavations adjacent to Fire pump station. Activities include cutting the pipe, welding the pipe

Compliance Observations and Issues:

ESA Fencing: NA

Wildlife Pitfalls/Traps/Pipes: Excavations + trenches ~ 3ft. deep have escape ramps. Both sloped earthen ramps + 2"x8" wood planks were used as escape ramps

Nesting Birds: No nests.

Coordination with Construction Personnel: None

Other Compliance Issues: None

Wildlife Species List for Day:
- western meadowlark
- western scrub jay
- cliff swallow
- rock pigeon
- great blue heron
- band-tailed pigeon
- American kestrel

URS
1333 Broadway, Suite 800
Oakland, CA 94612

Daily Monitoring Checklist **Date** 11/8/18
(Check if in compliance)

NA ESA fencing or a physical barrier is separating sensitive resources from active work areas and is in good condition.

☑ All trenches left open overnight have an escape ramp or are completely covered

☑ No new bird nesting activity observed/known nests buffered appropriately

☑ Straw wattles and/or silt fence are in place and in good condition

☑ Anyareas of disturbed soil with slopes off the site are stabalized to reduce erosion potential during and after construction

☑ Speed limit signs and messages are in place and accurate

☑ Equipment storage and parking is limited to the project site and/or designated staging areas

☑ Deliberate feeding of wildlife is not occurring

☑ Food-related trash is being disposed of in closed containers and removed weekly

☑ No firearms are present on site (except security personnel)

☑ No pets are present on site

Notes:

URS
1333 Broadway, Suite 800
Oakland, CA 94612

Biological Monitoring Log

Marsh Landing Generating Station	Date: 11/13/18
Monitor: Joe Bandel	Time: 0835 - 10:10
Weather: Cool, smoky, hazy, no wind	

Photo Numbers:

Activity that requires monitor's presence:
Construction of pipe in trench next to Fire Pump Station

Description of Construction Activities Observed:
- Work on pipe
- Moved construction debris
- Mobilized equipment

Compliance Observations and Issues:

ESA Fencing: NA

Wildlife Pitfalls/Traps/Pipes: Three trenches observed in construction area. All 3 trenches had escape ramps for wildlife. Escape ramps consisted of wood ramps on sloped earth

Nesting Birds: No nesting birds observed

Coordination with Construction Personnel: NA

Other Compliance Issues: None

Wildlife Species List for Day:
- rock pigeon
- band-tailed pigeon
- Anna's hummingbird
- Western scrub jay
- feral cat
- Say's phoebe
- Spotted towhee
- Northern flicker
- double-crested cormorant

URS
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Oakland, CA 94612

Daily Monitoring Checklist **Date** 11/13/18
(Check if in compliance)

N/A ESA fencing or a physical barrier is separating sensitive resources from active work areas and is in good condition.

☑ All trenches left open overnight have an escape ramp or are completely covered

☑ No new bird nesting activity observed/known nests buffered appropriately

☑ Straw wattles and/or silt fence are in place and in good condition

☑ Any areas of disturbed soil with slopes off the site are stabalized to reduce erosion potential during and after construction

☑ Speed limit signs and messages are in place and accurate

☑ Equipment storage and parking is limited to the project site and/or designated staging areas

☑ Deliberate feeding of wildlife is not occurring

☑ Food-related trash is being disposed of in closed containers and removed weekly

☑ No firearms are present on site (except security personnel)

☑ No pets are present on site

Notes:

URS
1333 Broadway, Suite800
Oakland, CA 94612

Biological Monitoring Log

Marsh Landing Generating Station	Date: 11/20/12
Monitor: Joe Bandel	Time: 0805 - 0925
Weather: Sunny, smokey, cold morning; temps in 40s-50s	

Photo Numbers:

Activity that requires monitor's presence:
Pipe installation + construction of fire pump station.

Description of Construction Activities Observed:
Pipeline work for fire pump. Work on piping inside fire pump station

Compliance Observations and Issues:

ESA Fencing: N/A

Wildlife Pitfalls/Traps/Pipes: Excavations are present that contain escape ramps for wildlife, both earthen ramps + wooden ramps

Nesting Birds: No nests observed.

Coordination with Construction Personnel: None

Other Compliance Issues: ~~N/A~~
Install construction erosion control BMPs for soil stockpiles.

Wildlife Species List for Day:
- western meadowlark
- western scrubjay
- mourning dove
- rock dove
- Northern mockingbird
- western kingbird

URS
1333 Broadway, Suite 800
Oakland, CA 94612

Daily Monitoring Checklist **Date** 11/20/18
(Check if in compliance)

☒ N/A ESA fencing or a physical barrier is separating sensitive resources from active work areas and is in good condition.

☑ All trenches left open overnight have an escape ramp or are completely covered

☑ No new bird nesting activity observed/known nests buffered appropriately

☑ Straw wattles and/or silt fence are in place and in good condition
- Need to cover stockpiles of sand or [redacted] soil.

☐ Any areas of disturbed soil with slopes off the site are stabalized to reduce erosion potential during and after construction

☑ Speed limit signs and messages are in place and accurate

☑ Equipment storage and parking is limited to the project site and/or designated staging areas

☑ Deliberate feeding of wildlife is not occurring

☑ Food-related trash is being disposed of in closed containers and removed weekly

☑ No firearms are present on site (except security personnel)

☑ No pets are present on site

Notes: Site compliance is good, but some erosion control BMPs for stockpiles to prevent sediment from [redacted] running off the site

URS
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Oakland, CA 94612

Biological Monitoring Log

Marsh Landing Generating Station	Date: 11/30/18
Monitor: Joe Bagdel	Time: 0815-0945
Weather: Cloudy, calm, after rained yesterday	

Photo Numbers:

Activity that requires monitor's presence:
Construction of pipes near fire pump building

Description of Construction Activities Observed:
Moving pipelines; Cutting pipe; Joining pipes and other work ussciated with pipeline

Compliance Observations and Issues:

ESA Fencing: N/A

Wildlife Pitfalls/Traps/Pipes: Excavations for pipeline are present surrounding the fire pump station. All the excavations had wildlife escape ramps whether an earthen ramp or a wooden plank ramp.

Nesting Birds:

Coordination with Construction Personnel: None

Other Compliance Issues: None

Wildlife Species List for Day:
- northern mocking bird
- Anna's hummingbird
- American crow
- rock dove
- black phoebe
- Say's phoebe
- great egret
- western scrubjay
- band-tailed pigeon

URS
1333 Broadway, Suite 800
Oakland, CA 94612

Daily Monitoring Checklist **Date** 11/30/18
(Check if in compliance)

NA ☐ ESA fencing or a physical barrier is separating sensitive resources from active work areas and is in good condition.

☑ All trenches left open overnight have an escape ramp or are completely covered

☑ No new bird nesting activity observed/known nests buffered appropriately

☑ Straw wattles and/or silt fence are in place and in good condition

☑ Any areas of disturbed soil with slopes off the site are stabalized to reduce erosion potential during and after construction

☑ Speed limit signs and messages are in place and accurate

☑ Equipment storage and parking is limited to the project site and/or designated staging areas

☑ Deliberate feeding of wildlife is not occurring

☑ Food-related trash is being disposed of in closed containers and removed weekly

☑ No firearms are present on site (except security personnel)

☑ No pets are present on site

Notes:

URS
1333 Broadway, Suite 800
Oakland, CA 94612

Biological Monitoring Log

Marsh Landing Generating Station	Date: 12/7/18
Monitor: Joe Bandel	Time: 0805-0920
Weather: Partly cloudy, cool, calm, temps high 40s - 50s	

Photo Numbers:

Activity that requires monitor's presence:
Pipeline work outside of fire pump station

Description of Construction Activities Observed:
- Workers were attaching pipe sections; moving pipe and conducting other pipe related construction activities.

Compliance Observations and Issues:

ESA Fencing: N/A

Wildlife Pitfalls/Traps/Pipes: Two excavations are present for installing pipelines. Both excavations had wildlife escape ramps either earthen ramp or wooden plank.

Nesting Birds: None

Coordination with Construction Personnel: None

Other Compliance Issues: None

Wildlife Species List for Day:
- black phoebe
- Anna's hummingbird
- red-tailed hawk
- rock dove
- western scrub jay
- western kingbird

URS
1333 Broadway, Suite 800
Oakland, CA 94612

Daily Monitoring Checklist **Date** 12/7/18
(Check if in compliance)

- [N/A] ESA fencing or a physical barrier is separating sensitive resources from active work areas and is in good condition.
- [✓] All trenches left open overnight have an escape ramp or are completely covered
- [✓] No new bird nesting activity observed/known nests buffered appropriately
- [✓] Straw wattles and/or silt fence are in place and in good condition
- [✓] Any areas of disturbed soil with slopes off the site are stabalized to reduce erosion potential during and after construction
- [✓] Speed limit signs and messages are in place and accurate
- [✓] Equipment storage and parking is limited to the project site and/or designated staging areas
- [✓] Deliberate feeding of wildlife is not occurring
- [✓] Food-related trash is being disposed of in closed containers and removed weekly
- [✓] No firearms are present on site (except security personnel)
- [✓] No pets are present on site

Notes:

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Oakland, CA 94612

Biological Monitoring Log

Marsh Landing Generating Station	Date: 12/14/18
Monitor: Joe Bandel	Time: 0825-0945
Weather: Cloudy, dry, cool and calm, temps ~46°F with 5-10mph	
Photo Numbers:	

Activity that requires monitor's presence:
Constructing pipeline from fire pump station

Description of Construction Activities Observed:
Pipeline work; moving materials + pipeline; connecting pipes; work in excavations

Compliance Observations and Issues:

ESA Fencing: NA

Wildlife Pitfalls/Traps/Pipes: Excavations present for installing pipeline to Fire Pump Station All excavation had wildlife escape ramps; either earthen ramp or wooden plank ramp.

Nesting Birds: None

Coordination with Construction Personnel: None

Other Compliance Issues: None

Wildlife Species List for Day:
- Western scrub jay
- black-tailed jack rabbit
- Anna's hummingbird
- rock dove
- black phoebe
- ~~Says phoebe~~

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Daily Monitoring Checklist **Date** 12/19/18
(Check if in compliance)

N/A ESA fencing or a physical barrier is separating sensitive resources from active work areas and is in good condition.

☑ All trenches left open overnight have an escape ramp or are completely covered

☑ No new bird nesting activity observed/known nests buffered appropriately

☑ Straw wattles and/or silt fence are in place and in good condition

☑ Any areas of disturbed soil with slopes off the site are stabalized to reduce erosion potential during and after construction

☑ Speed limit signs and messages are in place and accurate

☑ Equipment storage and parking is limited to the project site and/or designated staging areas

☑ Deliberate feeding of wildlife is not occurring

☑ Food-related trash is being disposed of in closed containers and removed weekly

☑ No firearms are present on site (except security personnel)

☑ No pets are present on site

Notes:

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1333 Broadway, Suite 800
Oakland, CA 94612

Biological Monitoring Log

Marsh Landing Generating Station	Date: 12/18/18
Monitor: Joe Bandel	Time: 0915 – 1030
Weather: Sunny, clear, temps in 50s, wind 5-10mph	

Photo Numbers:

Activity that requires monitor's presence:

Pipeline construction in excavations next to Pump station

Description of Construction Activities Observed:

Finishing pipeline work; miscellaneous activities associated with pipeline work in excavations.

Compliance Observations and Issues:

ESA Fencing: N/A

Wildlife Pitfalls/Traps/Pipes: Excavations are present for pipeline work; ramps for wildlife are also present including earthen + wooden ramps.

Nesting Birds: No nests observed.

Coordination with Construction Personnel: None

Other Compliance Issues: None

Wildlife Species List for Day:

- Anna's hummingbird
- western scrub jay
- black phoebe
- golden crowned sparrow
- rock dove

URS
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Daily Monitoring Checklist **Date** 12/15/16
(Check if in compliance)

N/A ESA fencing or a physical barrier is separating sensitive resources from active work areas and is in good condition.

☑ All trenches left open overnight have an escape ramp or are completely covered

☑ No new bird nesting activity observed/known nests buffered appropriately

☑ Straw wattles and/or silt fence are in place and in good condition

☑ Any areas of disturbed soil with slopes off the site are stabalized to reduce erosion potential during and after construction

☑ Speed limit signs and messages are in place and accurate

☑ Equipment storage and parking is limited to the project site and/or designated staging areas

☑ Deliberate feeding of wildlife is not occurring

☑ Food-related trash is being disposed of in closed containers and removed weekly

☑ No firearms are present on site (except security personnel)

☑ No pets are present on site

Notes:

URS
1333 Broadway, Suite 800
Oakland, CA 94612

Biological Monitoring Log

Marsh Landing Generating Station	Date: Dec - 28 - 2018
Monitor: Jansen, Derek	Time: 0830 - 0945
Weather: Sunny, Clear, Wind 15-25mph 38-57°F	

Photo Numbers:

Activity that requires monitor's presence: Fire extinguisher - Pipeline construction in excavations next to pump station. Open trenches and utility tie-in

Description of Construction Activities Observed: Finishing tie-in work for fire extinguisher. Activities associated with pipeline work in excavations. Electricians locating ground cable.

Compliance Observations and Issues: N/A

ESA Fencing: N/A

Wildlife Pitfalls/Traps/Pipes: N/A

Nesting Birds: No nests observed

Coordination with Construction Personnel: N/A

Other Compliance Issues: N/A

Wildlife Species List for Day: Anna's hummingbird, Yellow-rumped warbler, red-tailed hawk, CA scrub jay, rock pigeon, Sierran treefrog, CA ground squirrel, double crested cormorant, American robin, white-crowned sparrow, common raven, great egret, Northern flicker, House finch,

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Daily Monitoring Checklist **Date** Dec-28-2018
(Check if in compliance)

- [x] N/A ESA fencing or a physical barrier is separating sensitive resources from active work areas and is in good condition.
- [x] All trenches left open overnight have an escape ramp or are completely covered
- [x] No new bird nesting activity observed/known nests buffered appropriately
- [x] Straw wattles and/or silt fence are in place and in good condition
- [x] Any areas of disturbed soil with slopes off the site are stabalized to reduce erosion potential during and after construction
- [x] Speed limit signs and messages are in place and accurate
- [x] Equipment storage and parking is limited to the project site and/or designated staging areas
- [x] Deliberate feeding of wildlife is not occurring
- [x] Food-related trash is being disposed of in closed containers and removed weekly
- [x] No firearms are present on site (except security personnel)
- [x] No pets are present on site

Notes:

URS
1333 Broadway, Suite 800
Oakland, CA 94612

Power to be free℠

Marsh Landing Generating Station
Contractor Safety Orientation
Date: 8/30/2018 WEAP

NAME (Print)	DEPARTMENT/ CLASSIFICATION	SIGNATURE
1. Kathy Crist	Environmental	Kathy Crist
2.	ERM	
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Marsh Landing Generating Station

Trainer: Jon Stead
Date: 9/4/18
Training: WEAP
(for office use only)

WORKER ENVIRONMENTAL AWARENESS PROGRAM
WORKER TRAINING ATTENDANCE RECORD

I have attended the Marsh Landing Generating Station Project **Worker Environmental Awareness Program Worker Training** and understand and agree to comply with all environmental requirements presented. I understand that I am accountable for my actions and that failure to comply with the requirements may be grounds for immediate removal from the project and/or legal action.

	Signature	Print Name	Company	Date
1.	Jeffrey G. Lemire	Jeffrey Lemire	AECOM	9/4/18
2.				
3.				
4.				
5.				
6.				
7.				
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Marsh Landing Generating Station

Trainer: URS/AECOM Video
Date: 9/19/2018
Training: WEAP
(for office use only)

WORKER ENVIRONMENTAL AWARENESS PROGRAM
WORKER TRAINING ATTENDANCE RECORD

I have attended the Marsh Landing Generating Station Project **Worker Environmental Awareness Program Worker Training** and understand and agree to comply with all environmental requirements presented. I understand that I am accountable for my actions and that failure to comply with the requirements may be grounds for immediate removal from the project and/or legal action.

	Signature	Print Name	Company	Date
1.		Steven Brooks	Stroer & Graff	9/19
2.		David Lara	Stroer & Graff	9/19/18
3.		Cody Bailey	Stroer & Graff	9/19/18
4.		Kenneth McWilliams	Stroer & Graff	9-19-18
5.		Salvador Munoz	West Coast Drilling	9-19-18
6.		PAT MCCOY	West Coast Drilling	9-19-18
7.		Jon DeCook	S+G	9/19/18
8.		Bill Moyer	S+G	9/19/18
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Marsh Landing Generating Station

Trainer: James E. Robinson.

Date: 9/19/18

Training: WEAP Video

(for office use only)

/ORKER ENVIRONMENTAL AWARENESS PROGRAM
WORKER TRAINING ATTENDANCE RECORD

I have attended the Marsh Landing Generating Station Project **Worker Environmental Awareness Program Worker Training** and understand and agree to comply with all environmental requirements presented. I understand that I am accountable for my actions and that failure to comply with the requirements may be grounds for immediate removal from the project and/or legal action.

	Signature	Print Name	Company	Date
1.	[signature]	Roy J Carter	Stroum + Graff	9-19
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Power to be free℠

Marsh Landing Generating Station
Contractor Safety Orientation
Date: 10-1-18 Engel

NAME (Print)	DEPARTMENT/ CLASSIFICATION	SIGNATURE	
1. Jeff Huddleston	Watson		WEAP
2. John Cruz	ALB		WEAP
3. CHARLES T	CROWN		
4. Francisco P	Crown		
5. Eddy P	Crown		
6. Omar Prudente	Crown	Omar Prudente	
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Marsh Landing Generating Station

Trainer: WEAP Video
Date: Wed 3. 10-3-18
Training: WEAP
(for office use only)

WORKER ENVIRONMENTAL AWARENESS PROGRAM
WORKER TRAINING ATTENDANCE RECORD

I have attended the Marsh Landing Generating Station Project **Worker Environmental Awareness Program Worker Training** and understand and agree to comply with all environmental requirements presented. I understand that I am accountable for my actions and that failure to comply with the requirements may be grounds for immediate removal from the project and/or legal action.

	Signature	Print Name	Company	Date
1.		Louis Leonard	ALB	10-3-2018
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Marsh Landing Generating Station

Trainer: Frankson
Date: 11-5-18
Training: WEAP Video
(for office use only)

WORKER ENVIRONMENTAL AWARENESS PROGRAM
WORKER TRAINING ATTENDANCE RECORD

I have attended the Marsh Landing Generating Station Project **Worker Environmental Awareness Program Worker Training** and understand and agree to comply with all environmental requirements presented. I understand that I am accountable for my actions and that failure to comply with the requirements may be grounds for immediate removal from the project and/or legal action.

	Signature	Print Name	Company	Date
1.	[signature]	DENNIS WESSON	SMC	11-5-2018
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Marsh Landing Generating Station

Trainer: _____

Date: Nov. 2, '18

Training: WEAP Video

(for office use only)

WORKER ENVIRONMENTAL AWARENESS PROGRAM
WORKER TRAINING ATTENDANCE RECORD

I have attended the Marsh Landing Generating Station Project **Worker Environmental Awareness Program Worker Training** and understand and agree to comply with all environmental requirements presented. I understand that I am accountable for my actions and that failure to comply with the requirements may be grounds for immediate removal from the project and/or legal action.

	Signature	Print Name	Company	Date
1.		Jeremy Seney	PMI	11/7/18
2.		Jeff Barron	PMI	11/7/18
3.		Aaron Schlachter	PMI	11/7/18
4.		David Frandsen	NRG	11/7/18
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Marsh Landing Generating Station

Trainer: MIKE ENGEL

Date: 11/12/18

Training: Safety Indoc

(for office use only)

Wrap Video

WORKER ENVIRONMENTAL AWARENESS PROGRAM
WORKER TRAINING ATTENDANCE RECORD

I have attended the Marsh Landing Generating Station Project **Worker Environmental Awareness Program Worker Training** and understand and agree to comply with all environmental requirements presented. I understand that I am accountable for my actions and that failure to comply with the requirements may be grounds for immediate removal from the project and/or legal action.

	Signature	Print Name	Company	Date
1.		Jacob Favrbora	ALTA	11/12
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Marsh Landing Generating Station

Trainer: D. Frandsen
Date: 12-12-18
Training: Wkr Video
(for office use only)

WORKER ENVIRONMENTAL AWARENESS PROGRAM
WORKER TRAINING ATTENDANCE RECORD

I have attended the Marsh Landing Generating Station Project **Worker Environmental Awareness Program Worker Training** and understand and agree to comply with all environmental requirements presented. I understand that I am accountable for my actions and that failure to comply with the requirements may be grounds for immediate removal from the project and/or legal action.

	Signature	Print Name	Company	Date
1.	Ron Hall	RON HALL	PMI	12/12/18
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Marsh Landing Generating Station

Trainer: MIKE ENGEL
Date: 12/5/18
Training: WEAP Video
(for office use only)

WORKER ENVIRONMENTAL AWARENESS PROGRAM
WORKER TRAINING ATTENDANCE RECORD

I have attended the Marsh Landing Generating Station Project **Worker Environmental Awareness Program Worker Training** and understand and agree to comply with all environmental requirements presented. I understand that I am accountable for my actions and that failure to comply with the requirements may be grounds for immediate removal from the project and/or legal action.

	Signature	Print Name	Company	Date
1.		DAVE HERWAT	PMI	12/05/18
2.		MARCUS MITCHELL	PMI	12/05/18
3.				
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3.2 HAZ-1

See the latest attached copy of the list of Hazardous Materials contained at the facility.

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **AMMONIA CONTAINMENT SLAB**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only) Component Name	% Wt	EHS	CAS No.
	AMMONIUM HYDROXIDE	**Gallons**	**21200**	**21200**	12200		- Health Acute Toxicity - Health Skin Corrosion Irritation - Health Serious Eye Damage Eye Irritation - Health Specific Target Organ Toxicity	Anhydrous Ammonia	19 %		7664-41-7
								Water	81 %		7732-1-5
Corrosive, Toxic	CAS No 1336-21-6 Map: 2 Grid: D2	State Liquid	Storage Container Aboveground Tank		Pressue > Ambient	Waste Code					
		Type Mixture	Days on Site: 365		Temperature Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **BACK PULSE AIR FILTER COMPRESSORS**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	COMPRESSOR OIL	**Gallons**	**8**	**3**	8			Base Oil	90 %		
	CAS No	State: Liquid	Storage Container: Other		Pressue: Ambient	Waste Code		Dialkyl Thiophosphate Ester	1 %		268567-32-4
	Map: 2 Grid: G3-G8	Type: Mixture	Days on Site: 365		Temperature: Ambient			Alkaryl amine	2 %		68411-46-1

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **BATTERIES THROUGHOUT SITE (5kV BLDG, SWITCHYARD, ELECTRICAL PACKAGES, ADMIN BLDG)**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only) Component Name	% Wt	EHS	CAS No.
DOT: 8 - Corrosives (Liquids and Solids) Corrosive, Water Reactive, Class 2, Toxic, Oxidizing, Class 1	**LEAD ACID BATTERIES** CAS No ✔EHS Map: 2 Grid: I6, G4-8, C4	**Pounds** State Liquid Type Mixture	**9617** Storage Container Other Days on Site: 365	**58**	9617 Pressue Ambient Temperature Ambient	Waste Code	- Physical Flammable - Physical Explosive - Physical Corrosive To Metal - Health Carcinogenicity - Health Acute Toxicity - Health Reproductive Toxicity - Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Serious Eye Damage Eye Irritation - Health Specific Target Organ Toxicity	Sulfuric Acid	40 %	✔	7664-93-9

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **CEMS SHELTERS UNITS 1-4**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases	**NITROGEN** CAS No 7727-37-9 Map: 2 Grid: E3-E8	**Cu. Feet** State Gas Type Pure	**3600** Storage Container Cylinder Days on Site: 365	**300**	3000 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Gas Under Pressure - Physical Explosive - Health Simple Asphyxiant				
	NITROGEN, CARBON MONOXIDE CAS No Map: 2 Grid: E3-8	**Cu. Feet** State Gas Type Mixture	**750** Storage Container Cylinder Days on Site: 365	**150**	600 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Gas Under Pressure - Physical Explosive - Health Simple Asphyxiant	NITROGEN CARBON MONOXIDE	100 %		7727-37-9 630-08-0
	NITROGEN, NITRIC OXIDE CAS No Map: 2 Grid: E3-E8	**Cu. Feet** State Gas Type Mixture	**3300** Storage Container Cylinder Days on Site: 365	**150**	2700 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Gas Under Pressure - Physical Explosive - Health Simple Asphyxiant	NITROGEN NITRIC OXIDE NITROGEN OXIDES	100 %	✔	7727-37-9 10102-43-9 10102-44-0
	NITROGEN, NITRIC OXIDE, CARBON MONOXIDE CAS No Map: 2 Grid: E3-E8	**Cu. Feet** State Gas Type Mixture	**3000** Storage Container Cylinder Days on Site: 365	**150**	2550 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Gas Under Pressure - Physical Explosive - Health Simple Asphyxiant	NITROGEN NITRIC OXIDE CARBON MONOXIDE NITROGEN OXIDES	100 %	✔	7727-37-9 10102-43-9 630-08-0 10102-44-0
	NITROGEN, OXYGEN, CARBON MONOXIDE CAS No Map: 2 Grid: E3-8	**Cu. Feet** State Gas Type Mixture	**3750** Storage Container Cylinder Days on Site: 365	**150**	3150 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Gas Under Pressure - Physical Explosive - Health Reproductive Toxicity - Health Simple Asphyxiant	NITROGEN OXYGEN CARBON MONOXIDE	89 % 10 % 0 %		7727-37-9 7782-44-7 630-08-0

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **COMPRESSOR BUILDING**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.1 - Flammable Gases Unstable (Reactive), Class 2, Flammable Gas	**ACETYLENE** CAS No 74-86-2 Map: 2 Grid: C6	**Cu. Feet** State Gas Type Pure	**764** Storage Container Cylinder Days on Site: 365	**382**	764 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Flammable - Physical Gas Under Pressure - Physical Explosive - Health Simple Asphyxiant				
DOT: 2.2 - Nonflammable Gases Oxidizing, Class 2	**OXYGEN** CAS No 7782-44-7 Map: 2 Grid: C6	**Cu. Feet** State Gas Type Pure	**843** Storage Container Cylinder Days on Site: 365	**281**	800 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Gas Under Pressure - Physical Oxidizer				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **CONTROL OIL RESERVOIRS**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	LUBE OIL	**Gallons**	**420**	**140**	420						
	CAS No	State: Liquid	Storage Container: Other		Pressue: Ambient	Waste Code					
	Map: 2 Grid: F3-F7	Type: Mixture	Days on Site: 365		Temperature: Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **DAIS UNIT AIR COMPRESSORS**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	COMPRESSOR OIL	**Gallons**	**100**	**30**	80			Base Oil	90 %		
	CAS No	State: Liquid	Storage Container: Other		Pressue: Ambient	Waste Code		Dialkyl Thiophosphate Ester	1 %		268567-32-4
	Map: 2 Grid: F3-F8	Type: Mixture	Days on Site: 365		Temperature: Ambient			Alkaryl amine	2 %		68411-46-1
	ULTRA COOLANT	**Gallons**	**60**	**15**	60			Polypropylene glycol	65 %		
	CAS No	State: Liquid	Storage Container: Other		Pressue: Ambient	Waste Code		Pentaerythritol ester	27 %		
	Map: 2 Grid: F3-F8	Type: Mixture	Days on Site: 365		Temperature: > Ambient			Alkylated diphenylamine	5 %		68411-46-1
								Barium dinonyl-naphthalene sulfonate	0 %		25619-56-1

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **EMERGENCY GENERATOR**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only) Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class II	**DIESEL FUEL NO. 2** CAS No 68476-34-6 Map: 2 Grid: G6	**Gallons** State Liquid Type Mixture	**1100** Storage Container Aboveground Tank Days on Site: 365	**1100**	800 Pressue Ambient Temperature Ambient	Waste Code	- Physical Flammable - Health Carcinogenicity - Health Acute Toxicity - Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Specific Target Organ Toxicity - Health Aspiration Hazard	DIESEL FUEL NO. 2 RENEWABLE DIESEL FATTY ACID METHYL ESTERS NAPHTHALENE	98 % 10 % 3 % 0 %		68476-34-6 91-20-3

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **FIRE PUMP BUILDING**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class II	**DIESEL FUEL NO. 2** CAS No 68476-34-6 Map: 2 Grid: C2	**Gallons** State Liquid Type Mixture	**359** Storage Container Tank Inside Building Days on Site: 365	**359**	280 Pressue Ambient Temperature Ambient	Waste Code	- Physical Flammable - Health Carcinogenicity - Health Acute Toxicity - Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Specific Target Organ Toxicity - Health Aspiration Hazard	DIESEL FUEL NO. 2 RENEWABLE DIESEL FATTY ACID METHYL ESTERS NAPHTHALENE	98 % 10 % 3 % 0 %		68476-34-6 91-20-3

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **FUEL GAS CHROMATOGRAPH**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases	**COMPRESSED AIR ZERO** CAS No Map: 2 Grid: C6	**Cu. Feet** State: Gas Type: Mixture	**600** Storage Container: Cylinder Days on Site: 365	**300**	300 Pressue: > Ambient Temperature: Ambient	Waste Code	- Physical Gas Under Pressure				
DOT: 2.2 - Nonflammable Gases	**HELIUM** CAS No 7440-59-7 Map: 2 Grid: C6	**Cu. Feet** State: Gas Type: Pure	**600** Storage Container: Cylinder Days on Site: 365	**300**	600 Pressue: > Ambient Temperature: Ambient	Waste Code	- Physical Gas Under Pressure - Physical Explosive - Health Simple Asphyxiant				
DOT: 2.1 - Flammable Gases Flammable Gas	**HYDROGEN** CAS No 1333-74-0 Map: 2 Grid: C6	**Cu. Feet** State: Gas Type: Pure	**600** Storage Container: Cylinder Days on Site: 365	**300**	300 Pressue: > Ambient Temperature: Ambient	Waste Code	- Physical Flammable - Physical Gas Under Pressure - Physical Explosive - Health Simple Asphyxiant				
DOT: 2.1 - Flammable Gases Flammable Gas	**METHANE MIXTURE CHROMATOGRAPH CAL GAS** CAS No Map: 2 Grid: C6	**Cu. Feet** State: Gas Type: Mixture	**500** Storage Container: Cylinder Days on Site: 365	**250**	250 Pressue: > Ambient Temperature: Ambient	Waste Code	- Physical Flammable - Physical Gas Under Pressure - Physical Explosive - Health Simple Asphyxiant	ETHANE METHANE PROPANE NITROGEN	100 % 100 % 100 % 10 %		74-84-0 74-82-8 74-98-6 7727-37-9
DOT: 2.2 - Nonflammable Gases	**NITROGEN** CAS No 7727-37-9 Map: 2 Grid: C6	**Cu. Feet** State: Gas Type: Pure	**600** Storage Container: Cylinder Days on Site: 365	**300**	300 Pressue: > Ambient Temperature: Ambient	Waste Code	- Physical Gas Under Pressure - Physical Explosive - Health Simple Asphyxiant				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **FUEL GAS COMPRESSORS**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	LUBE OIL	**Gallons**	**315**	**105**	315						
	CAS No	State: Liquid	Storage Container: Aboveground Tank		Pressue: Ambient	Waste Code					
	Map: 2 Grid: C6	Type: Mixture	Days on Site: 365		Temperature: Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **FUEL GAS CONDITIONING SKID AND FILTER/SEPARATOR**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	NATURAL GAS CONDENSATE	**Gallons**	**561**	**211**	5		- Physical Flammable - Health Carcinogenicity - Health Acute Toxicity - Health Specific Target Organ Toxicity - Health Aspiration Hazard - Health Germ Cell Mutagenicity	Propane Ethane n-Pentane n-Hexane Heptane	50 % 30 % 15 % 8 % 6 %		74-98-6 74-84-0 109-66-0 110-54-3 142-82-5
	CAS No	State: Liquid	Storage Container: Aboveground Tank		Pressue: Ambient	Waste Code					
	Map: 2 Grid: C6	Type: Mixture	Days on Site: 365		Temperature: Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **FUEL GAS DEW POINT HEATERS**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	PROPYLENE GLYCOL 30%	**Gallons**	**18932**	**9466**	18932			PROPYLENE GLYCOL	96 %		57-55-6
	CAS No 57-55-6	State Liquid	Storage Container Aboveground Tank		Pressue Ambient	Waste Code		WATER	4 %		7732-18-5
	Map: 2 Grid: D6	Type Mixture	Days on Site: 365		Temperature > Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **GENERATOR AIR COMPRESSOR, SHOP COMPRESSOR**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	COMPRESSOR OIL	**Gallons**	**5**	**2**	5			Base Oil	90 %		
	CAS No	State: Liquid	Storage Container: Other		Pressue: Ambient	Waste Code		Dialkyl Thiophosphate Ester	1 %		268567-32-4
								Alkaryl amine	2 %		68411-46-1
	Map: 2 Grid: G3-G8, C3	Type: Mixture	Days on Site: 365		Temperature: Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **HAZARDOUS MATERIALS STORAGE**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	CLEANBLADE GTC 1000 CAS No Map: 2 Grid: H12	**Gallons** State: Liquid Type: Mixture	**110** Storage Container: Plastic/Non-metalic Drum Days on Site: 365	**55**	80 Pressue: Ambient Temperature: Ambient	Waste Code	- Health Carcinogenicity - Health Reproductive Toxicity - Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Serious Eye Damage Eye Irritation - Health Specific Target Organ Toxicity	FATTY ALCOHOL ALKOXYLATE PROPYLENE GLYCOL N-BUTYL ETHER SEBACIC ACID DIETHANOLAMINE	15 % 5 % 2 % 1 %		69227-21-0 5131-66-8 70103-35-4 111-42-2
	COMPRESSOR OIL CAS No Map: 2 Grid: H12	**Gallons** State: Liquid Type: Mixture	**15** Storage Container: Plastic Bottle or Jug Days on Site: 365	**5**	15 Pressue: Ambient Temperature: Ambient	Waste Code		Base Oil Alkaryl amine Dialkyl Thiophosphate Ester	90 % 2 % 1 %		 68411-46-1 268567-32-4
	LUBRICATING AND HYDRAULIC OILS CAS No Map: 2 Grid: H12	**Gallons** State: Liquid Type: Mixture	**275** Storage Container: Steel Drum, Plastic Bottle or Jug Days on Site: 365	**55**	275 Pressue: Ambient Temperature: Ambient	Waste Code					
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class II	**PAINT** CAS No 8052-41-3 Map: 2 Grid: H12	**Gallons** State: Liquid Type: Mixture	**45** Storage Container: Can Days on Site: 365	**5**	40 Pressue: Ambient Temperature: Ambient	Waste Code	- Health Carcinogenicity - Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Serious Eye Damage Eye Irritation - Health Specific Target Organ Toxicity				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **HAZARDOUS WASTE STORAGE**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	OILY RAGS AND SPILL DEBRIS CAS No Map: 2 Grid: C4	**Pounds** State: Solid Type: Waste	**900** Storage Container: Steel Drum, Box Days on Site: 365	**900**	250 Pressue: Ambient Temperature: Ambient	1900 Waste Code: 352	- Physical Flammable - Physical SelfHeating - Health Carcinogenicity - Health Reproductive Toxicity - Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Serious Eye Damage Eye Irritation - Health Specific Target Organ Toxicity - Health Germ Cell Mutagenicity				
	USED OIL CAS No Map: 2 Grid: C4	**Gallons** State: Liquid Type: Waste	**55** Storage Container: Steel Drum Days on Site: 365	**55**	25 Pressue: Ambient Temperature: Ambient	1000 Waste Code: 221	- Health Carcinogenicity - Health Reproductive Toxicity - Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Serious Eye Damage Eye Irritation - Health Specific Target Organ Toxicity - Health Aspiration Hazard - Health Germ Cell Mutagenicity	Lubricating Oils, used Water/Solids	90 % 10 %		70514-12-4 7732-18-5

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **LAYDOWN YARD**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases	**NITROGEN** CAS No 7727-37-9 Map: 2 Grid: C11	**Cu. Feet** State Gas Type Pure	**3000** Storage Container Cylinder Days on Site: 365	**500**	2000 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Gas Under Pressure - Physical Explosive - Health Simple Asphyxiant				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **MACHINE SHOP**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class II	**DIESEL FUEL NO. 2** CAS No 68476-34-6 Map: 2 Grid: C4	**Gallons** State Liquid Type Mixture	**10** Storage Container Other Days on Site: 365	**5**	10 Pressue Ambient Temperature Ambient	Waste Code	- Physical Flammable - Health Carcinogenicity - Health Acute Toxicity - Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Specific Target Organ Toxicity - Health Aspiration Hazard	DIESEL FUEL NO. 2 RENEWABLE DIESEL FATTY ACID METHYL ESTERS NAPHTHALENE	98 % 10 % 3 % 0 %		68476-34-6 91-20-3
	Lube Oil CAS No Map: 2 Grid: C4	**Gallons** State Liquid Type Mixture	**440** Storage Container Steel Drum Days on Site: 120	**55**	440 Pressue Ambient Temperature Ambient	Waste Code		HIGHLY REFINED MINERAL OIL (C15-C50) ALKYL PHENOL ARYL AMINE			MIXTURE MIXTURE MIXTURE
	LUBRICATING AND HYDRAULIC OILS CAS No Map: 2 Grid: C4	**Gallons** State Liquid Type Mixture	**40** Storage Container Plastic Bottle or Jug Days on Site: 365	**5**	35 Pressue Ambient Temperature Ambient	Waste Code					

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **MAIN AIR COMPRESSORS**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	COMPRESSOR OIL	**Gallons**	**14**	**5**	12			Base Oil	90 %		
	CAS No	State: Liquid	Storage Container: Other		Pressue: Ambient	Waste Code		Dialkyl Thiophosphate Ester	1 %		268567-32-4
	Map: 2 Grid: D6	Type: Mixture	Days on Site: 365		Temperature: Ambient			Alkaryl amine	2 %		68411-46-1

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **OIL WATER SEPARATORS NEAR U1 SWITCHYARD & NORTH OF UNITS 2&3**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only) Component Name	% Wt	EHS	CAS No.
	OILY WATER	**Gallons**	**3000**	**2000**	3000		- Health Carcinogenicity - Health Reproductive Toxicity - Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Serious Eye Damage Eye Irritation - Health Specific Target Organ Toxicity - Health Aspiration Hazard - Health Germ Cell Mutagenicity				
	CAS No	State: Liquid	Storage Container: Other		Pressue: Ambient	Waste Code					
	Map: 2 Grid: D6, H4	Type: Mixture	Days on Site: 365		Temperature: Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location
PORTABLE TANKS AT COVERED PARKING LOT AND TURBINES (as needed)

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only) Component Name	% Wt	EHS	CAS No.
	CLEANBLADE GTC 1000	**Gallons**	**575**	**400**	50		- Health Carcinogenicity - Health Reproductive Toxicity - Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Serious Eye Damage Eye Irritation - Health Specific Target Organ Toxicity	FATTY ALCOLHOL ALKOXYLATE	15 %		69227-21-0
	CAS No	State: Liquid	Storage Container: Tank Wagon		Pressue: Ambient	Waste Code		PROPYLENE GLYCOL N-BUTYL ETHER	5 %		5131-66-8
	Map: 2 Grid: D12, F3-F8	Type: Mixture	Days on Site: 365		Temperature: Ambient			SEBACIC ACID	2 %		70103-35-4
								DIETHANOLAMINE	1 %		111-42-2

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **REFUELING TRUCK**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class II	**DIESEL FUEL NO. 2** CAS No 68476-34-6 Map: 2 Grid: D12	**Gallons** State Liquid Type Mixture	**50** Storage Container Other Days on Site: 365	**50**	25 Pressue Ambient Temperature Ambient	Waste Code	- Physical Flammable - Health Carcinogenicity - Health Acute Toxicity - Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Specific Target Organ Toxicity - Health Aspiration Hazard	DIESEL FUEL NO. 2 RENEWABLE DIESEL FATTY ACID METHYL ESTERS NAPHTHALENE	98 % 10 % 3 % 0 %		68476-34-6 91-20-3
DOT: 3 - Flammable and Combustible Liquids Flammable Liquid, Class I-B	**GASOLINE (Unleaded)** CAS No Map: 2 Grid: D12	**Gallons** State Liquid Type Mixture	**50** Storage Container Other Days on Site: 365	**50**	25 Pressue Ambient Temperature Ambient	Waste Code	- Physical Flammable - Health Carcinogenicity - Health Reproductive Toxicity - Health Skin Corrosion Irritation - Health Serious Eye Damage Eye Irritation - Health Specific Target Organ Toxicity - Health Aspiration Hazard - Health Germ Cell Mutagenicity	GASOLINE TOLUENE XYLENE PENTANE BUTANE	100 % 20 % 8 % 7 % 6 %		86290-81-5 108-88-3 1330-20-7 540-84-1 106-97-8

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **SPARE TRANSFORMER NORTH OF WAREHOUSE**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases	**NITROGEN** CAS No 7727-37-9 Map: 2 Grid: G11	**Cu. Feet** State Gas Type Pure	**300** Storage Container Cylinder Days on Site: 365	**150**	150 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Gas Under Pressure - Physical Explosive - Health Simple Asphyxiant				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **SWITCHYARD**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	HYDRAULIC OIL	**Gallons**	**90**	**15**	90		- Health Acute Toxicity - Health Skin Corrosion Irritation - Health Aspiration Hazard	Gas Oils	85 %		64742-79-6
								Butylated hydroxytoluene	0 %		128-37-0
	CAS No	State: Liquid	Storage Container: Aboveground Tank		Pressue: Ambient	Waste Code					
	Map: 2 Grid: H3-H7	Type: Mixture	Days on Site: 365		Temperature: Ambient						
DOT: 2.2 - Nonflammable Gases	**SULFUR HEXAFLUORIDE**	**Cu. Feet**	**3015**	**503**	3015		- Physical Gas Under Pressure - Physical Explosive - Health Simple Asphyxiant				
	CAS No: 2551-62-4	State: Gas	Storage Container: Other		Pressue: > Ambient	Waste Code					
	Map: 2 Grid: H3-H7	Type: Pure	Days on Site: 365		Temperature: Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **TA FANS**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	LUBE OIL	**Gallons**	**864**	**108**	680						
	CAS No	State: Liquid	Storage Container: Other		Pressue: Ambient	Waste Code					
	Map: 2 Grid: E3-E7	Type: Mixture	Days on Site: 365		Temperature: Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **Transformers Throughout (GSU, AUX, SPARE, and CONSTRUCTION)**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	MINERAL OIL, HYTRANS 61	**Gallons**	**88212**	**15224**	88212		- Health Respiratory Skin Sensitization - Health Serious Eye Damage Eye Irritation - Health Aspiration Hazard	DISTILLATES, PETROLEUM	99 %		64742-53-6
	CAS No	State: Liquid	Storage Container: Other		Pressue: Ambient	Waste Code		2, 6-DI-BUTYL-P-CRESOL (BHT)	1 %		128-37-0
	Map: 2 Grid: C8, G3-G7, G11	Type: Mixture	Days on Site: 365		Temperature: Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **TURBINES**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	LUBE OIL	**Gallons**	**26000**	**7244**	22000						
	CAS No: 64742-54-7 Map: 2 Grid: F4-F8	State: Liquid Type: Mixture	Storage Container: Other Days on Site: 365		Pressue: Ambient Temperature: Ambient	Waste Code					

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **TURBINES AND ELECTRICAL PACKAGES**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	FM 200 FIRE SUPPRESSION CAS No 431-89-0 Map: 2 Grid: G3-G8	**Pounds** State Gas Type Pure	**5376** Storage Container Cylinder Days on Site: 365	**562**	5376 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Gas Under Pressure - Physical Explosive - Health Simple Asphyxiant	1,1,1,2,3,3,3-HEPTAFLUROPROPANE NITROGEN	100 %		431-89-0 7727-37-9

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **TURNING GEAR LUBE OIL**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	LUBE OIL	**Gallons**	**76**	**19**	76						
	CAS No	State: Liquid	Storage Container: Other		Pressue: Ambient	Waste Code					
	Map: 2 Grid: G3-G8	Type: Mixture	Days on Site: 365		Temperature: Ambient						

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **Various Air Receivers**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases	**AIR** CAS No 132259-10-0 Map: 2 Grid: C3-G8	**Cu. Feet** State Gas Type Pure	**3753** Storage Container Aboveground Tank Days on Site: 365	**2115**	2369 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Gas Under Pressure				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **WAREHOUSE**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases	**HELIUM** CAS No 7440-59-7 Map: 2 Grid: H12 State: Gas Type: Pure Storage Container: Cylinder Days on Site: 365	**Cu. Feet**	**1200**	**300**	600		- Physical Gas Under Pressure - Physical Explosive - Health Simple Asphyxiant				
DOT: 2.1 - Flammable Gases Flammable Gas	**HYDROGEN** CAS No 1333-74-0 Map: 2 Grid: H12 State: Gas Type: Pure Storage Container: Cylinder Days on Site: 365	**Cu. Feet**	**900**	**300**	600		- Physical Flammable - Physical Gas Under Pressure - Physical Explosive - Health Simple Asphyxiant				
DOT: 8 - Corrosives (Liquids and Solids) Corrosive, Water Reactive, Class 2, Toxic, Oxidizing, Class 1	**LEAD ACID BATTERIES** CAS No ✔EHS Map: 2 Grid: H12 State: Liquid Type: Mixture Storage Container: Other Days on Site: 365	**Pounds**	**300**	**300**	300		- Physical Flammable - Physical Explosive - Physical Corrosive To Metal - Health Carcinogenicity - Health Acute Toxicity - Health Reproductive Toxicity - Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Serious Eye Damage Eye Irritation - Health Specific Target Organ Toxicity	Sulfuric Acid	40 %	✔	7664-93-9

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **WAREHOUSE**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.1 - Flammable Gases Flammable Gas	**METHANE MIXTURE CHROMATOGRAPH CAL GAS** CAS No Map: 2 Grid: H12	**Cu. Feet**	**500**	**150**	250		- Physical Flammable - Physical Gas Under Pressure - Physical Explosive - Health Simple Asphyxiant	ETHANE METHANE PROPANE NITROGEN	100 % 100 % 100 % 10 %		74-84-0 74-82-8 74-98-6 7727-37-9
	State: Gas Storage Container: Cylinder Type: Mixture Days on Site: 365				Pressue: > Ambient Temperature: Ambient	Waste Code					
DOT: 2.2 - Nonflammable Gases	**NITROGEN** CAS No 7727-37-9 Map: 2 Grid: H12	**Cu. Feet**	**9900**	**300**	5500		- Physical Gas Under Pressure - Physical Explosive - Health Simple Asphyxiant				
	State: Gas Storage Container: Cylinder Type: Pure Days on Site: 365				Pressue: > Ambient Temperature: Ambient	Waste Code					
	NITROGEN, CARBON MONOXIDE CAS No Map: 2 Grid: H12	**Cu. Feet**	**600**	**150**	450		- Physical Gas Under Pressure - Physical Explosive - Health Simple Asphyxiant	NITROGEN CARBON MONOXIDE	100 %		7727-37-9 630-08-0
	State: Gas Storage Container: Cylinder Type: Mixture Days on Site: 365				Pressue: > Ambient Temperature: Ambient	Waste Code					
	NITROGEN, NITRIC OXIDE CAS No Map: 2 Grid: H12	**Cu. Feet**	**3750**	**150**	2700		- Physical Gas Under Pressure - Physical Explosive - Health Simple Asphyxiant	NITROGEN NITRIC OXIDE NITROGEN OXIDES	100 %	✓	7727-37-9 10102-43-9 10102-44-7
	State: Gas Storage Container: Cylinder Type: Mixture Days on Site: 365				Pressue: > Ambient Temperature: Ambient	Waste Code					
	NITROGEN, NITRIC OXIDE, CARBON MONOXIDE CAS No Map: 2 Grid: H12	**Cu. Feet**	**3000**	**150**	2250		- Physical Gas Under Pressure - Physical Explosive - Health Simple Asphyxiant	NITROGEN NITRIC OXIDE CARBON MONOXIDE NITROGEN OXIDES	100 %	✓	7727-37-9 10102-43-9 630-08-0 10102-44-0
	State: Gas Storage Container: Cylinder Type: Mixture Days on Site: 365				Pressue: > Ambient Temperature: Ambient	Waste Code					
	NITROGEN, OXYGEN, CARBON MONOXIDE CAS No Map: 2 Grid: H12	**Cu. Feet**	**3300**	**150**	2250		- Physical Gas Under Pressure - Physical Explosive - Health Reproductive Toxicity - Health Simple Asphyxiant	NITROGEN OXYGEN CARBON MONOXIDE	89 % 10 % 0 %		7727-37-9 7782-44-7 630-08-0
	State: Gas Storage Container: Cylinder Type: Mixture Days on Site: 365				Pressue: > Ambient Temperature: Ambient	Waste Code					
DOT: 2.2 - Nonflammable Gases	**ULTRA ZERO COMPRESSED AIR** CAS No Map: 2 Grid: H12	**Cu. Feet**	**1200**	**300**	900		- Physical Gas Under Pressure - Physical Explosive				
	State: Gas Storage Container: Cylinder Type: Mixture Days on Site: 365				Pressue: > Ambient Temperature: Ambient	Waste Code					

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **WAREHOUSE FLAMMABLE CABINET**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class II	**DIESEL FUEL NO. 2** CAS No 68476-34-6 Map: 2 Grid: H12	**Gallons** State Liquid Type Mixture	**10** Storage Container Other Days on Site: 365	**5**	10 Pressue Ambient Temperature Ambient	Waste Code	- Physical Flammable - Health Carcinogenicity - Health Acute Toxicity - Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Specific Target Organ Toxicity - Health Aspiration Hazard	DIESEL FUEL NO. 2 RENEWABLE DIESEL FATTY ACID METHYL ESTERS NAPTHALENE	100 % 10 % 3 % 0 %		68476-34-6 91-20-3
DOT: 3 - Flammable and Combustible Liquids Flammable Liquid, Class I-B	**GASOLINE (Unleaded)** CAS No Map: 2 Grid: H12	**Gallons** State Liquid Type Mixture	**20** Storage Container Can Days on Site: 365	**5**	20 Pressue Ambient Temperature Ambient	Waste Code	- Physical Flammable - Health Carcinogenicity - Health Reproductive Toxicity - Health Skin Corrosion Irritation - Health Serious Eye Damage Eye Irritation - Health Specific Target Organ Toxicity - Health Aspiration Hazard - Health Germ Cell Mutagenicity	GASOLINE TOLUENE XYLENE PENTANE BUTANE	100 % 20 % 8 % 7 % 6 %		86290-81-5 108-88-3 1330-20-7 540-84-1 106-97-8
	ULTRA COOLANT CAS No Map: 2 Grid: H12	**Gallons** State Liquid Type Mixture	**16** Storage Container Plastic Bottle or Jug Days on Site: 365	**5.3**	11 Pressue Ambient Temperature Ambient	Waste Code		Polypropylene glycol Pentaerythritol ester Alkylated diphenylamine Barium dinonyl-naphthalene sulfonate	65 % 27 % 5 % 0 %		 68411-46-1 25619-56-1

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Marsh Landing Generating Station**
Facility Name **Marsh Landing Generating Station**
3201C Wilbur Ave, Antioch 94509

Chemical Location **WATER TREATMENT BUILDING**

CERS ID **10480876**
Facility ID **07-000-774528**
Status **Submitted** on 2/15/2019 12:18 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
	RO-505 CAS No Map: 2 Grid: C4	**Gallons** State: Liquid Type: Mixture	**350** Storage Container: Tote Bin Days on Site: 365	**350**	190 Pressue: Ambient Temperature: Ambient	Waste Code	- Health Acute Toxicity - Health Skin Corrosion Irritation - Health Serious Eye Damage Eye Irritation - Health Aspiration Hazard	2-Propenoic acid, homopolymer Polyoxalkylenes, C4-6, propoxylated 2 Propenoic acid, telomer	14 % 20 % 8 %		9003-01-4 68918-96-7 97953-25-8
DOT: 8 - Corrosives (Liquids and Solids) Corrosive, Highly Toxic	**SODIUM BISULFITE 35% - 40%, BWT-104** CAS No 7631-90-5 Map: 2 Grid: C4	**Gallons** State: Liquid Type: Mixture	**350** Storage Container: Tote Bin Days on Site: 365	**350**	200 Pressue: Ambient Temperature: Ambient	Waste Code	- Health Acute Toxicity - Health Skin Corrosion Irritation - Health Serious Eye Damage Eye Irritation	SODIUM BISULFITE			7631-90-5
	SODIUM HYPOCHLORITE 12.5% CAS No Map: 2 Grid: C4	**Gallons** State: Liquid Type: Mixture	**325** Storage Container: Tote Bin Days on Site: 365	**325**	150 Pressue: Ambient Temperature: Ambient	Waste Code	- Health Skin Corrosion Irritation - Health Serious Eye Damage Eye Irritation	SODIUM HYPOCHLORITE SODIUM HYDROXIDE	13 % 1 %		7681-52-9 1310-73-2

3.3 HAZ-8

The site specific security plan has been reviewed and updated.

- All current project employees and appropriate contractor background investigations have been performed and a certification statement has been appended to the operations security plan.
- The operation security plan includes all current hazardous material transport vendor certifications for security plans and employee background investigations.

6.0 APPENDIX

Appendix A – Affidavit of Compliance for Project Owners

SAMPLE CERTIFICATION (Attachment A)

Affidavit of Compliance for Project Owners

I, Sean P. Beatty, Secretary
(Name of person signing affidavit)(Title)

do hereby certify that background investigations to ascertain the accuracy of the identity and employment history of all employees of

NRG Marsh Landing LLC
(Company name)

for employment at

Marsh Landing Generating Station, Antioch, CA
(Project name and location)

have been conducted as required by the California Energy Commission Decision for the above-named project.

S P Beatty
(Signature of officer or agent)

Dated this 21st day of March, 20 16

THIS AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT SECURITY PLAN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE FOR REVIEW BY THE CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER.

Appendix B – Affidavit of Compliance

Hazardous Materials Transport Vendor 1

SAMPLE CERTIFICATION (Attachment C)

Affidavit of Compliance for Hazardous Materials Transport Vendors

[illegible]
(Name of person signing affidavit)(Title)
do hereby certify that the below-named company has prepared and implemented security plans in conformity with 49 CFR 172.880 and has conducted employee background investigations in conformity with 49 CFR 172, subparts A and B,
[illegible]
(Company name)
for hazardous materials delivery to
[illegible] Marsh Landing Generating Station, Antioch, CA
(Project name and location)
as required by the California Energy Commission Decision for the above-named project.

(Signature of officer or agent)

Dated this 17th day of August, 2012.
THIS AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT SECURITY PLAN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE FOR REVIEW BY THE CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER.

Appendix C - Affidavit of Compliance

Hazardous Materials Transport Vendor 2

SAMPLE CERTIFICATION (Attachment C)

Affidavit of Compliance for Hazardous Materials Transport Vendors

(Name of person signing affidavit) (Title)

do hereby certify that the below-named company has prepared and implemented security plans to conform with 49 CFR 172.800 and has conducted employee background investigations in conformity with 49 CFR 172.802, subparts A and B.

(Company name)

for hazardous materials delivery to

(Project name and location)

as required by the California Energy Commission Decision for the above-named project.

(Signature of officer or agent)

Dated this 17th day of August, 2012

THIS AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT SECURITY PLAN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE FOR REVIEW BY THE CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER.

3.4 SOIL & WATER-5

- See attached Quarterly Industrial User Compliance Reports to DDSD.

Delta Diablo

Industrial User Report Checklist And Certification Statement Form

Attn: Environmental Compliance Specialist	**Mike Auer**			
Environmental Specialist Phone	(925) 756-1900	Fax	(925) 756-1961	
Industrial User Facility Name	**NRG Marsh Landing, LLC**			
Duly Authorized Representative Name	**Joe Moura**			
Duly Authorized Representative Phone	**925-779-6685**			

This Industrial User Report Checklist and Certification Statement Form shall be submitted with all Self-Monitoring Reports (SMRs), as specified by the Wastewater Discharge Permit issued by Delta Diablo, hereinafter referred to as the District. When submitting Self-Monitoring Reports, check all that are applicable.

RECEIVED BY DELTA DIABLO APR 04 2018

Self-Monitoring Reports (SMRs) (Required)

☒ Flow Discharge Summary (Review Discharge Permit.)

☒ Calibration of Effluent Flow Meters; if applicable.

☒ Monitoring Results – all required tests completed, results reviewed, results included Quality Assurance/Quality Control (QA/QC) and Chain-of-Custody (COC) (Review Discharge Permit):

☒ pH (**field-grab**) (shall be **analyzed within 15 minutes** of **sample collection**).
Results, collection time, analysis time and Technician's Initials shall be reported in the comments section of the respective COC. The pH meter shall be accurate and reproducible to 0.1 pH unit with a range of 0 to 14 and equipped with a temperature–compensation adjustment (Standard methods).

☒ Cyanide samples were tested for oxidizers and preserved with Sodium Hydroxide (NaOH).
This shall be reported in the comments section on the respective COC, if applicable.

☒ Selenium lab analysis by EPA Method 200.8 by Reaction Mode: if applicable.

☒ Total Phenolics lab analysis by EPA Method 420.4: if applicable.

☒ **All sample analysis** for **regulatory compliance reporting** shall be completed by an ELAP certified Laboratory.

☒ Certification Statement included (see attached)

☐ Other requested data _____

Industrial User Report Checklist And Certification Statement Form

Violations (if applicable)

☐ All wastewater discharge violations are reported during this period:

☐ The District was contacted within 24- hours of becoming aware of the violation.
Date: _____

☐ A follow-up resample was completed. Date: _____

☐ Corrective actions implemented to resolve violation (Please explain in writing)

☐ Significant Non-Compliance (SNC) Status Review
Please circle the review period *: **January – June** and **July -December**.

The SIU shall conduct a SNC review for the previous completed period * prior to the Self-monitoring Report (SMR) due date. Examples: A October SMR due date, the SNC review period is **January – June** or an April SMR due date, the SNC review period is **July – December.**

The SNC definition can be found in 40 CFR 403.8.

a) Chronic SNC= >66% of a regulated parameter in violation during six-month Period *.

b) Technical Review Criteria (TRC) SNC = >33% of a regulated pollutant during a six-month period* equals or exceeds the product of the daily maximum limit or the average limit multiplied by the applicable TRC factor (1.4 for BOD, TSS and Oil/Grease and 1.2 for all other regulated pollutants except pH).

☐ Is the SIU in SNC (as defined in a and/or b) for this period*? Yes ☐**,** No ☐; If yes, for what period? _____ . Please report the SNC status to the District in the SMR and include corrective actions to resolve the SNC classification.

☐ Other violations – i.e., reporting, spills to sewer, or prohibited discharges

All violations will be discussed in the cover letter of the Self-Monitoring Report.

☐ Significant Changes

Anticipated changes that may alter the nature, quality, or volume of the wastewater discharged. Planned changes shall be submitted at least 90 days prior to implementation, and shall include a detailed description of this change.

Delta Diablo

Industrial User Report Checklist And Certification Statement Form

Certification Statement

Industrial User Facility Name	**NRG Marsh Landing, LLC**
Industrial User Facility Address	**3201-C Wilbur Avenue, A ntioch, CA 94509**
Duly Authorized Representative Phone	**925-779-6685**
Indicate Period Covered by This Report	**January 1-March 31, 2018**

Certification Statement:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations (40 CFR 403.6).

Duly Authorized Representative Signature	
Duly Authorized Representative Print	**Joe Mou ra**
Date	4/4/18

NRG Marsh Landing, LLC
Marsh Landing Generating Station
3201-C Wilbur Avenue (shipping)
PO Box 1687 (mailing)
Antioch, CA 94509

April 4, 2018

Mr. Mike Auer
Delta Diablo
2500 Pittsburg-Antioch Highway
Antioch, CA 94509-1373

Subject: **2018 First Quarterly (January 1-March 31) Self-Monitoring Report**
NRG Marsh Landing, LLC, Marsh Landing Generating Station,
Industrial Wastewater Discharge Permit 0311963-S

This letter documents the transmittal of the 2018 First Quarterly Self-Monitoring Report (SMR).

Compliance Statement (choose one):

☑ There were no violations of waste discharge requirements during the reporting period.

☐ The following violation(s) of waste discharge requirements occurred during the reporting period, as described below:

Discussion:

This report is the SMR filed for the station and covers the period from January 1 through March 31, 2018. This report includes monthly flow data and quarterly, semiannual, and annual analytical data required to be collected in 2018. Data are summarized in the attached tables.

Additionally, enclosed is documentation of the flow meter calibrations performed in January 2018 for compliance with the Annual Flow Measurement Device Calibration requirement in the Industrial Wastewater Discharge Permit.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions, please contact Mr. David Frandsen, Environmental Specialist at david.frandsen@nrg.com or call 925.779-6695

Sincerely,

Joe Moura
Site Manager
NRG Marsh Landing, LLC
Marsh Landing Generating Station

Attachments

Table 1:	Quarterly Results for Combined Wastewater (FAC Combined)
Table 2:	Semiannual Results for Combined Wastewater (FAC Combined)
Table 3:	Annual Results for Combined Wastewater (FAC Combined)
Table 4:	January 2018 Monthly Flow Data
Table 5:	February 2018 Monthly Flow Data
Table 6:	March 2018 Monthly Flow Data

Attachment 1:	pH COC
Attachment 2:	Analytical Reports
Attachment 3:	Annual Flow Measurement Device Calibration Records

NRG Marsh Landing, LLC
Marsh Landing Generating Station
Permit 0311963-S

Table 1

Quarterly Results for Combined Wastewater (FAC Combined)

Industrial User Name	NRG Marsh Landing, LLC
Location	Marsh Landing Generating Station
Permit Number	0311963-S
SIC	4911
Address	3201-C Wilbur Avenue
	Antioch CA 94509

Sample Station Location	FAC Combined
Sample Station Description	Local Limits FAC Combined Wastewater
Reporting Period	January - March 2018
Report Type	Quarterly

Constituent	Sample Date	Permit Limit	Result	Units
Field pH	1/23/2018	6-10	7.5	S.U.
BOD	1/23/2018	-	ND	mg/L
COD	1/23/2018	-	20	mg/L
Arsenic	1/23/2018	0.15	0.00051	mg/L
Cadmium	1/23/2018	0.1	ND	mg/L
Chromium	1/23/2018	0.5	0.00029 J	mg/L
Copper	1/23/2018	0.5	0.0047	mg/L
Iron	1/23/2018	-	0.110	mg/L
Lead	1/23/2018	0.5	0.00014 J	mg/L
Mercury	1/23/2018	0.003	ND	mg/L
Molybdenum	1/23/2018	-	0.00083	mg/L
Nickel	1/23/2018	0.5	0.0026	mg/L
Selenium	1/23/2018	0.25	ND	mg/L
Silver	1/23/2018	0.2	ND	mg/L
Zinc	1/23/2018	1.0	0.091	mg/L
TDS	1/23/2018	-	194	mg/L
TSS	1/23/2018	-	2.00	mg/L

J = The reported concentration is an estimated value.

mg/L = Milligrams per liter

ND = Not detected at or above the laboratory Method Detection Limit or Reporting Limit.

S.U. = Standard units

NRG Marsh Landing, LLC
Marsh Landing Generating Station
Permit 0311963-S

Table 2

Semiannual Results for Combined Wastewater (FAC Combined)

Industrial User Name	NRG Marsh Landing, LLC
Location	Marsh Landing Generating Station
Permit Number	0311963-S
SIC	4911
Address	3201-C Wilbur Avenue
	Antioch CA 94509

Sample Station Location	FAC Combined
Sample Station Description	Local Limits FAC Combined Wastewater
Reporting Period	January - July 2018
Report Type	Semiannual

Constituent	Sample Date	Permit Limit	Result	Units
Cyanide	1/23/2018	0.20	ND	mg/L
Total Phenolics (EPA 420.4)	1/23/2018	1.0	0.0088	mg/L
Ammonia as N	1/23/2018	200	3.5	mg/L
Oil and Grease Animal/Vegetable (HEM)	1/23/2018	300	ND	mg/L
Oil and Grease Petroleum/Mineral (SGT-HEM)	1/23/2018	100	ND	mg/L
Bromodichloromethane	1/23/2018	-	*0.00092*	mg/L
Bromoform	1/23/2018	-	*0.00016 J*	mg/L
Chloroform	1/23/2018	-	*0.00075*	mg/L
Dibromochloromethane	1/23/2018	-	*0.00073*	mg/L
1,2-Dichlorobenzene	1/23/2018	-	*0.00013 J*	mg/L
1,3-Dichlorobenzene	1/23/2018	-	*0.000099 J*	mg/L
1,4-Dichlorobenzene	1/23/2018	-	*0.00014 J*	mg/L
Toluene	1/23/2018	-	*0.000082 J*	mg/L
Phenol	1/23/2018	-	*0.0024*	mg/L
Total Toxic Organics	1/23/2018	2.0	0.0048	mg/L

J = The reported concentration is an estimated value and is not included in Total Toxic Organic totals.

mg/L = Milligrams per liter

ND = Not detected at or above the laboratory Method Detection Limit or Reporting Limit.

Table 3

Annual Results for Combined Wastewater (FAC Combined)

Industrial User Name	NRG Marsh Landing, LLC
Location	Marsh Landing Generating Station
Permit Number	0311963-S
SIC	4911
Address	3201-C Wilbur Avenue
	Antioch CA 94509

Sample Station Location	FAC Combined
Sample Station Description	Local Limits FAC Combined Wastewater
Reporting Period	January - December 2018
Report Type	Annual

Constituent	Sample Date	Permit Limit	Result	Units
Sulfide	1/23/2018	-	0.020 J	mg/L
Sulfate	1/23/2018	-	30	mg/L

J = The reported concentration is an estimated value.

mg/L = Milligrams per liter

Table 4
Monthly Flow Data

Industrial User Name	NRG Marsh Landing, LLC
Location	Marsh Landing Generating Station
Permit Number	0311963-S
SIC	4911
Address	3201-C Wilbur Avenue
	Antioch CA 94509
Sample Station Location	Outfall #4
Sample Station Description	Flow Monitoring Structure
Reporting Period	January, 2018
Report Type	Quarterly
Constituent	Flow
Sample Type	Continuous, measured by flow meter
Sample Date	1/1/2018 - 1/31/2018
Permit Limits (s.u.)	NTE 30,240 gpd. NTE 21 gpm +10% for 15 consecutive minutes or 30 minutes in a 24-hour period

Day	Total Flow (gpd)	Instantaneous Max (gpm)	Minutes per Day of Flow exceeding 21 (+10% = 23.1)
1	4,024	20.09	
2	10,837	20.07	
3	6,119	20.34	
4	7,861	20.11	
5	6,667	20.08	
6	9,923	20.06	
7	0	0.00	
8	13,183	20.43	
9	28,346	20.13	
10	6,721	20.09	
11	10,093	20.53	
12	128	16.84	
13	0	0.00	
14	0	0.00	
15	0	0.00	
16	0	0.00	
17	0	0.00	
18	7,983	20.11	
19	0	0.00	
20	16,946	19.85	
21	0	0.00	
22	18,247	19.96	
23	26,778	19.88	
24	6,345	19.94	
25	8,052	19.93	
26	4,469	20.01	
27	5,197	19.84	
28	0	0.00	
29	4,639	20.45	
30	9,671	21.00	
31	4,762	19.86	

Total Monthly Flow (gal)	216,991	Did flow exceed limits?	NO
Daily Max Flow (gpd)	28,346	Flow above daily max (30,240 gpd)?	NO
Average Monthly Flow (gpd)	7,000		

Table 5
Monthly Flow Data

Industrial User Name	NRG Marsh Landing, LLC
Location	Marsh Landing Generating Station
Permit Number	0311963-S
SIC	4911
Address	3201-C Wilbur Avenue
	Antioch CA 94509
Sample Station Location	Outfall #4
Sample Station Description	Flow Monitoring Structure
Reporting Period	February, 2018
Report Type	Quarterly
Constituent	Flow
Sample Type	Continuous, measured by flow meter
Sample Date	2/1/2018 - 2/28/2018
Permit Limits (s.u.)	NTE 30,240 gpd. NTE 21 gpm +10% for 15 consecutive minutes or 30 minutes in a 24-hour period

Day	Total Flow (gpd)	Instantaneous Max (gpm)	Minutes per Day of Flow exceeding 21 (+10% = 23.1)
1	6,887	19.91	
2	0	0.00	
3	0	0.00	
4	0	0.00	
5	0	0.00	
6	0	0.00	
7	1,285	17.97	
8	11,379	21.08	
9	5,515	19.88	
10	7,997	19.91	
11	0	0.00	
12	6,277	21.18	
13	5,628	19.81	
14	3,295	19.92	
15	22,083	19.84	
16	2,927	19.91	
17	12,833	19.95	
18	5,805	19.87	
19	0	0.00	
20	401	16.28	
21*	4,702	20.75	
22*	0	0.00	
23	0	0.00	
24	2,629	19.86	
25	2,372	19.82	
26	0	0.00	
27	0	0.00	
28	626	18.62	

Total Monthly Flow (gal)	102,641	Did flow exceed limits?	NO
Daily Max Flow (gpd)	22,083	Flow above daily max (30,240 gpd)?	NO
Average Monthly Flow (gpd)	3,666		

Table 6
Monthly Flow Data

Industrial User Name	NRG Marsh Landing, LLC
Location	Marsh Landing Generating Station
Permit Number	0311963-S
SIC	4911
Address	3201-C Wilbur Avenue
	Antioch CA 94509
Sample Station Location	Outfall #4
Sample Station Description	Flow Monitoring Structure
Reporting Period	March, 2018
Report Type	Quarterly
Constituent	Flow
Sample Type	Continuous, measured by flow meter
Sample Date	3/1/2018 - 3/31/2018
Permit Limits (s.u.)	NTE 30,240 gpd. NTE 21 gpm +10% for 15 consecutive minutes or 30 minutes in a 24-hour period

Day	Total Flow (gpd)	Instantaneous Max (gpm)	Minutes per Day of Flow exceeding 21 (+10% = 23.1)
1	5,617	21.47	
2	0	0.00	
3	0	0.00	
4	10,481	19.71	
5	416	16.37	
6	0	0.00	
7	445	14.85	
8	8,222	21.08	
9	34	15.94	
10	0	0.00	
11	0	0.00	
12	480	14.41	
13	0	0.00	
14	461	13.42	
15	0	0.00	
16	5,003	20.20	
17	0	0.00	
18	3,441	20.62	
19	2,216	20.06	
20	0	0.00	
21	522	15.13	
22	4,381	19.91	
23	0	0.00	
24	3,127	20.54	
25	1,639	19.72	
26	4,536	19.59	
27	2,883	19.64	
28	11,286	19.91	
29	2,888	19.56	
30	4,202	21.24	
31	1,798	19.59	

Total Monthly Flow (gal)	74,078	Did flow exceed limits?	NO
Daily Max Flow (gpd)	11,286	Flow above daily max (30,240 gpd)?	NO
Average Monthly Flow (gpd)	2,390		

Marsh Landing Generating Station
Chemistry Department
Environmental Laboratory Accreditation Program Certificate No. 2818

Reported to:
Laboratory Coordinator

NPDES
Monthly Analytical Report

Sample Point	Sample Number	Sample Date (m/d/y)	Sample Collection Time	Date Analyzed (m/d/y)	pH Analysis Time	Sample Medium	Sample Type (Grab, 24-Hour Composite)	pH
							Method:	SM 4500-H+B
							Unit:	standard
							Reporting Limit:	0.18
							Method Detection Limit:	0.06
FAC Combined Wastewater	ML-18-034	1/23/18	1410	1/23/18	1410	Wastewater	Grab	7.5

SM = Standard Method; ppm = parts per million; mg/L = milligrams per liter; N/A = not applicable

Laboratory Director or Coordinator: David Frandsen
Signature: David Frandsen
Date: Jan 25 2018

Chemistry Technologist: James Robinson
Signature: James E. Robinson
Date: 23-Jan-18
Reviewed By:

McCampbell Analytical, Inc.
"When Quality Counts"

Analytical Report

WorkOrder: 1801C07

Report Created for: NRG Energy, LLC

3201 Wilbur Avenue
Antioch, CA 94509

Project Contact: David Frandsen
Project P.O.: 4501808523
Project: Semi-Annual

Project Received: 01/23/2018

Analytical Report reviewed & approved for release on 01/30/2018 by:

Heidi Fruhlinger
Project Manager

1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ www.mccampbell.com
CA ELAP 1644 ♦ NELAP 4033 ORELAP

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: NRG Energy, LLC
Project: Semi-Annual
WorkOrder: 1801C07

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

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Glossary of Terms & Qualifier Definitions

Client: NRG Energy, LLC
Project: Semi-Annual
WorkOrder: 1801C07

Analytical Qualifiers

J	Result is less than the RL/ML but greater than the MDL. The reported concentration is an estimated value.
h3	Elemental sulfur (EPA 3660) cleanup

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Analytical Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C07
Date Received:	1/23/18 15:47	**Extraction Method:**	E608/SW3620B
Date Prepared:	1/24/18	**Analytical Method:**	E608
Project:	Semi-Annual	**Unit:**	µg/L

Organochlorine Pesticides + PCBs w/ Florisil Clean-up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	1801C07-001C	Water	01/23/2018 14:10	GC22 01251819.D	152135

Analytes	Result	MDL	RL	DF	Date Analyzed
Aldrin	ND	0.00030	0.0011	1	01/25/2018 21:50
a-BHC	ND	0.00033	0.0011	1	01/25/2018 21:50
b-BHC	ND	0.00074	0.0011	1	01/25/2018 21:50
d-BHC	ND	0.00015	0.0011	1	01/25/2018 21:50
g-BHC	ND	0.00048	0.0011	1	01/25/2018 21:50
Chlordane (Technical)	ND	0.0025	0.021	1	01/25/2018 21:50
a-Chlordane	ND	0.00091	0.0011	1	01/25/2018 21:50
g-Chlordane	ND	0.00016	0.0011	1	01/25/2018 21:50
p,p-DDD	ND	0.00012	0.0011	1	01/25/2018 21:50
p,p-DDE	ND	0.00019	0.0011	1	01/25/2018 21:50
p,p-DDT	ND	0.00018	0.0011	1	01/25/2018 21:50
Dieldrin	ND	0.00015	0.0011	1	01/25/2018 21:50
Endosulfan I	ND	0.00012	0.0011	1	01/25/2018 21:50
Endosulfan II	ND	0.00049	0.0011	1	01/25/2018 21:50
Endosulfan sulfate	ND	0.00035	0.0021	1	01/25/2018 21:50
Endrin	ND	0.00019	0.0011	1	01/25/2018 21:50
Endrin aldehyde	ND	0.00057	0.0011	1	01/25/2018 21:50
Endrin ketone	ND	0.00028	0.0011	1	01/25/2018 21:50
Heptachlor	ND	0.00044	0.0011	1	01/25/2018 21:50
Heptachlor epoxide	ND	0.00027	0.0011	1	01/25/2018 21:50
Methoxychlor	ND	0.00013	0.0011	1	01/25/2018 21:50
Toxaphene	ND	0.0021	0.021	1	01/25/2018 21:50
Aroclor1016	ND	0.0020	0.021	1	01/25/2018 21:50
Aroclor1221	ND	0.0026	0.021	1	01/25/2018 21:50
Aroclor1232	ND	0.0041	0.021	1	01/25/2018 21:50
Aroclor1242	ND	0.0030	0.021	1	01/25/2018 21:50
Aroclor1248	ND	0.0019	0.021	1	01/25/2018 21:50
Aroclor1254	ND	0.0016	0.021	1	01/25/2018 21:50
Aroclor1260	ND	0.0030	0.021	1	01/25/2018 21:50
PCBs, total	ND	0.0016	0.021	1	01/25/2018 21:50

Surrogates	REC (%)	Limits	
Decachlorobiphenyl	80	70-130	01/25/2018 21:50

Analyst(s): CK Analytical Comments: h3

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Analytical Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C07
Date Received:	1/23/18 15:47	**Extraction Method:**	E624
Date Prepared:	1/24/18	**Analytical Method:**	E624
Project:	Semi-Annual	**Unit:**	µg/L

Acrolein, Acrylonitrile, & 2-Chloroethyl Vinyl Ether

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	**1801C07-001D**	**Water**	**01/23/2018 14:10**	**GC28 01231828.D**	**152113**

Analytes	Result	MDL	RL	DF	Date Analyzed
Acrolein (Propenal)	ND	2.5	5.0	1	01/24/2018 00:45
Acrylonitrile	ND	1.0	2.0	1	01/24/2018 00:45
2-Chloroethyl Vinyl Ether	ND	0.50	1.0	1	01/24/2018 00:45

Surrogates	REC (%)	Limits	
Dibromofluoromethane	109	78-141	01/24/2018 00:45

Analyst(s): HK

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Analytical Report

Client: NRG Energy, LLC
Date Received: 1/23/18 15:47
Date Prepared: 1/24/18
Project: Semi-Annual

WorkOrder: 1801C07
Extraction Method: E624
Analytical Method: E624
Unit: µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	1801C07-001E	Water	01/23/2018 14:10	GC16 01231826.D	152134

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
Benzene	ND		0.051	0.20	1	01/24/2018 00:28
Bromodichloromethane	**0.92**		0.20	0.50	1	01/24/2018 00:28
Bromoform	**0.16**	J	0.066	0.50	1	01/24/2018 00:28
Bromomethane	ND		0.16	0.50	1	01/24/2018 00:28
Carbon tetrachloride	ND		0.069	0.50	1	01/24/2018 00:28
Chlorobenzene	ND		0.050	0.50	1	01/24/2018 00:28
Chloroethane	ND		0.31	0.50	1	01/24/2018 00:28
Chloroform	**0.75**		0.064	0.50	1	01/24/2018 00:28
Chloromethane	ND		0.13	0.50	1	01/24/2018 00:28
Dibromochloromethane	**0.73**		0.080	0.50	1	01/24/2018 00:28
1,2-Dibromoethane (EDB)	ND		0.12	0.50	1	01/24/2018 00:28
1,2-Dichlorobenzene	**0.13**	J	0.080	0.50	1	01/24/2018 00:28
1,3-Dichlorobenzene	**0.099**	J	0.071	0.50	1	01/24/2018 00:28
1,4-Dichlorobenzene	**0.14**	J	0.072	0.50	1	01/24/2018 00:28
1,1-Dichloroethane	ND		0.060	0.50	1	01/24/2018 00:28
1,2-Dichloroethane (1,2-DCA)	ND		0.090	0.50	1	01/24/2018 00:28
1,1-Dichloroethene	ND		0.086	0.50	1	01/24/2018 00:28
trans-1,2-Dichloroethene	ND		0.060	0.50	1	01/24/2018 00:28
1,2-Dichloropropane	ND		0.055	0.50	1	01/24/2018 00:28
cis-1,3-Dichloropropene	ND		0.090	0.50	1	01/24/2018 00:28
trans-1,3-Dichloropropene	ND		0.070	0.50	1	01/24/2018 00:28
Ethylbenzene	ND		0.050	0.50	1	01/24/2018 00:28
Methyl-t-butyl ether (MTBE)	ND		0.10	0.50	1	01/24/2018 00:28
Methylene chloride	ND		0.052	0.50	1	01/24/2018 00:28
1,1,2,2-Tetrachloroethane	ND		0.11	0.50	1	01/24/2018 00:28
Tetrachloroethene	ND		0.082	0.50	1	01/24/2018 00:28
Toluene	**0.082**	J	0.040	0.50	1	01/24/2018 00:28
1,1,1-Trichloroethane	ND		0.050	0.50	1	01/24/2018 00:28
1,1,2-Trichloroethane	ND		0.080	0.50	1	01/24/2018 00:28
Trichloroethene	ND		0.060	0.50	1	01/24/2018 00:28
Trichlorofluoromethane	ND		0.047	0.50	1	01/24/2018 00:28
Vinyl chloride	ND		0.070	0.50	1	01/24/2018 00:28
Xylenes, Total	ND		0.25	0.50	1	01/24/2018 00:28

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Analytical Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C07
Date Received:	1/23/18 15:47	**Extraction Method:**	E624
Date Prepared:	1/24/18	**Analytical Method:**	E624
Project:	Semi-Annual	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	**1801C07-001E**	**Water**	**01/23/2018 14:10**	**GC16 01231826.D**	**152134**

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
Surrogates	REC (%)			Limits		
Dibromofluoromethane	101			78-141		01/24/2018 00:28
Toluene-d8	89			78-129		01/24/2018 00:28
4-BFB	81			61-140		01/24/2018 00:28

Analyst(s): KF

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Analytical Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C07
Date Received:	1/23/18 15:47	**Extraction Method:**	E625
Date Prepared:	1/24/18	**Analytical Method:**	E625
Project:	Semi-Annual	**Unit:**	µg/L

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	1801C07-001F	Water	01/23/2018 14:10	GC21 01241818.D	152115

Analytes	Result	MDL	RL	DF	Date Analyzed
Acenaphthene	ND	0.25	1.0	1	01/24/2018 17:28
Acenaphthylene	ND	0.27	1.0	1	01/24/2018 17:28
Anthracene	ND	0.16	1.0	1	01/24/2018 17:28
Benzidine	ND	0.30	5.2	1	01/24/2018 17:28
Benzo (a) anthracene	ND	0.17	1.0	1	01/24/2018 17:28
Benzo (a) pyrene	ND	0.18	1.0	1	01/24/2018 17:28
Benzo (b) fluoranthene	ND	0.17	1.0	1	01/24/2018 17:28
Benzo (g,h,i) perylene	ND	0.19	1.0	1	01/24/2018 17:28
Benzo (k) fluoranthene	ND	0.21	1.0	1	01/24/2018 17:28
Bis (2-chloroethoxy) Methane	ND	0.31	1.0	1	01/24/2018 17:28
Bis (2-chloroethyl) Ether	ND	0.25	1.0	1	01/24/2018 17:28
Bis (2-chloroisopropyl) Ether	ND	0.29	1.0	1	01/24/2018 17:28
Bis (2-ethylhexyl) Adipate	ND	0.52	1.0	1	01/24/2018 17:28
Bis (2-ethylhexyl) Phthalate	ND	0.36	2.1	1	01/24/2018 17:28
4-Bromophenyl Phenyl Ether	ND	0.18	1.0	1	01/24/2018 17:28
Butylbenzyl Phthalate	ND	0.30	1.0	1	01/24/2018 17:28
4-Chloroaniline	ND	0.35	2.1	1	01/24/2018 17:28
4-Chloro-3-methylphenol	ND	0.28	1.0	1	01/24/2018 17:28
2-Chloronaphthalene	ND	0.26	1.0	1	01/24/2018 17:28
2-Chlorophenol	ND	0.27	1.0	1	01/24/2018 17:28
4-Chlorophenyl Phenyl Ether	ND	0.21	1.0	1	01/24/2018 17:28
Chrysene	ND	0.19	1.0	1	01/24/2018 17:28
Dibenzo (a,h) anthracene	ND	0.20	1.0	1	01/24/2018 17:28
Dibenzofuran	ND	0.22	1.0	1	01/24/2018 17:28
Di-n-butyl Phthalate	ND	0.31	1.0	1	01/24/2018 17:28
1,2-Dichlorobenzene	ND	0.24	1.0	1	01/24/2018 17:28
1,3-Dichlorobenzene	ND	0.23	1.0	1	01/24/2018 17:28
1,4-Dichlorobenzene	ND	0.23	1.0	1	01/24/2018 17:28
3,3-Dichlorobenzidine	ND	0.15	2.1	1	01/24/2018 17:28
2,4-Dichlorophenol	ND	0.29	1.0	1	01/24/2018 17:28
Diethyl Phthalate	ND	0.16	1.0	1	01/24/2018 17:28
2,4-Dimethylphenol	ND	0.10	1.0	1	01/24/2018 17:28
Dimethyl Phthalate	ND	0.19	1.0	1	01/24/2018 17:28
4,6-Dinitro-2-methylphenol	ND	1.0	5.2	1	01/24/2018 17:28
2,4-Dinitrophenol	ND	0.91	5.2	1	01/24/2018 17:28
2,4-Dinitrotoluene	ND	0.18	1.0	1	01/24/2018 17:28
2,6-Dinitrotoluene	ND	0.21	1.0	1	01/24/2018 17:28

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Analytical Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C07
Date Received:	1/23/18 15:47	**Extraction Method:**	E625
Date Prepared:	1/24/18	**Analytical Method:**	E625
Project:	Semi-Annual	**Unit:**	µg/L

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	**1801C07-001F**	**Water**	**01/23/2018 14:10**	**GC21 01241818.D**	**152115**

Analytes	Result	MDL	RL	DF	Date Analyzed
Di-n-octyl Phthalate	ND	0.28	2.1	1	01/24/2018 17:28
1,2-Diphenylhydrazine	ND	0.17	1.0	1	01/24/2018 17:28
Fluoranthene	ND	0.19	1.0	1	01/24/2018 17:28
Fluorene	ND	0.21	1.0	1	01/24/2018 17:28
Hexachlorobenzene	ND	0.19	1.0	1	01/24/2018 17:28
Hexachlorobutadiene	ND	0.25	1.0	1	01/24/2018 17:28
Hexachlorocyclopentadiene	ND	1.3	5.2	1	01/24/2018 17:28
Hexachloroethane	ND	0.30	1.0	1	01/24/2018 17:28
Indeno (1,2,3-cd) pyrene	ND	0.20	1.0	1	01/24/2018 17:28
Isophorone	ND	0.34	1.0	1	01/24/2018 17:28
2-Methylnaphthalene	ND	0.30	1.0	1	01/24/2018 17:28
2-Methylphenol (o-cresol)	ND	0.20	1.0	1	01/24/2018 17:28
3 & 4-Methylphenol (m,p-Cresol)	**14**	0.20	1.0	1	01/24/2018 17:28
Naphthalene	ND	0.25	1.0	1	01/24/2018 17:28
2-Nitroaniline	ND	1.4	5.2	1	01/24/2018 17:28
3-Nitroaniline	ND	1.3	5.2	1	01/24/2018 17:28
4-Nitroaniline	ND	1.3	5.2	1	01/24/2018 17:28
Nitrobenzene	ND	0.34	1.0	1	01/24/2018 17:28
2-Nitrophenol	ND	1.5	5.2	1	01/24/2018 17:28
4-Nitrophenol	ND	1.8	5.2	1	01/24/2018 17:28
N-Nitrosodimethylamine	ND	0.77	5.2	1	01/24/2018 17:28
N-Nitrosodiphenylamine	ND	0.19	1.0	1	01/24/2018 17:28
N-Nitrosodi-n-propylamine	ND	0.37	1.0	1	01/24/2018 17:28
Pentachlorophenol	ND	0.52	5.2	1	01/24/2018 17:28
Phenanthrene	ND	0.23	1.0	1	01/24/2018 17:28
Phenol	**2.4**	0.36	1.0	1	01/24/2018 17:28
Pyrene	ND	0.25	1.0	1	01/24/2018 17:28
1,2,4-Trichlorobenzene	ND	0.23	1.0	1	01/24/2018 17:28
2,4,5-Trichlorophenol	ND	0.22	1.0	1	01/24/2018 17:28
2,4,6-Trichlorophenol	ND	0.24	1.0	1	01/24/2018 17:28

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Analytical Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C07
Date Received:	1/23/18 15:47	**Extraction Method:**	E625
Date Prepared:	1/24/18	**Analytical Method:**	E625
Project:	Semi-Annual	**Unit:**	µg/L

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	**1801C07-001F**	**Water**	**01/23/2018 14:10**	**GC21 01241818.D**	**152115**

Analytes	Result	MDL	RL	DF	Date Analyzed
Surrogates	REC (%)		Limits		
2-Fluorophenol	48		8-130		01/24/2018 17:28
Phenol-d5	32		5-130		01/24/2018 17:28
Nitrobenzene-d5	68		20-140		01/24/2018 17:28
2-Fluorobiphenyl	68		40-140		01/24/2018 17:28
2,4,6-Tribromophenol	88		16-180		01/24/2018 17:28
Terphenyl-d14	75		40-170		01/24/2018 17:28

Analyst(s): REB

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Analytical Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C07
Date Received:	1/23/18 15:47	**Extraction Method:**	E350.1
Date Prepared:	1/30/18	**Analytical Method:**	E350.1
Project:	Semi-Annual	**Unit:**	mg/L

Ammonia As Nitrogen

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	**1801C07-001B**	**Water**	**01/23/2018 14:10**	**WC_SKALAR 013018A1_38**	**152419**

Analytes	Result	MDL	RL	DF	Date Analyzed
Ammonia, total as N	**3.5**	0.020	0.10	1	01/30/2018 13:35

Analyst(s): BM

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Analytical Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C07
Date Received:	1/23/18 15:47	**Extraction Method:**	Kelada-01
Date Prepared:	1/24/18	**Analytical Method:**	Kelada-01
Project:	Semi-Annual	**Unit:**	µg/L

Cyanide, Total

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	**1801C07-001A**	**Water**	**01/23/2018 14:10**	**WC_SKALAR 012418A1_37**	**152129**

Analytes	Result	MDL	RL	DF	Date Analyzed
Total Cyanide	ND	1.0	1.0	1	01/24/2018 12:59

Analyst(s): BM

CA ELAP 1644

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Analytical Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C07
Date Received:	1/23/18 15:47	**Extraction Method:**	E420.4
Date Prepared:	1/30/18	**Analytical Method:**	E420.4
Project:	Semi-Annual	**Unit:**	µg/L

Phenolics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	**1801C07-001B**	**Water**	**01/23/2018 14:10**	**WC_SKALAR 013018A1_20**	**152447**

Analytes	Result	MDL	RL	DF	Date Analyzed
Phenolics	**8.8**	0.51	2.0	1	01/30/2018 17:34

Analyst(s): BM

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Quality Control Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C07
Date Prepared:	1/24/18	**BatchID:**	152135
Date Analyzed:	1/25/18 - 1/26/18	**Extraction Method:**	E608/SW3620B
Instrument:	GC22	**Analytical Method:**	E608
Matrix:	Water	**Unit:**	µg/L
Project:	Semi-Annual	**Sample ID:**	MB/LCS/LCSD-152135

QC Summary Report for E608 w/ Florisil Clean-up

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Aldrin	ND	0.00028	0.0010	-	-	-
a-BHC	ND	0.00031	0.0010	-	-	-
b-BHC	ND	0.00069	0.0010	-	-	-
d-BHC	ND	0.00014	0.0010	-	-	-
g-BHC	ND	0.00045	0.0010	-	-	-
Chlordane (Technical)	ND	0.0023	0.020	-	-	-
a-Chlordane	ND	0.00085	0.0010	-	-	-
g-Chlordane	ND	0.00015	0.0010	-	-	-
p,p-DDD	ND	0.00011	0.0010	-	-	-
p,p-DDE	ND	0.00018	0.0010	-	-	-
p,p-DDT	ND	0.00017	0.0010	-	-	-
Dieldrin	ND	0.00014	0.0010	-	-	-
Endosulfan I	ND	0.00011	0.0010	-	-	-
Endosulfan II	ND	0.00046	0.0010	-	-	-
Endosulfan sulfate	ND	0.00033	0.0020	-	-	-
Endrin	ND	0.00018	0.0010	-	-	-
Endrin aldehyde	ND	0.00053	0.0010	-	-	-
Endrin ketone	ND	0.00026	0.0010	-	-	-
Heptachlor	ND	0.00041	0.0010	-	-	-
Heptachlor epoxide	ND	0.00025	0.0010	-	-	-
Methoxychlor	ND	0.00012	0.0010	-	-	-
Toxaphene	ND	0.0020	0.020	-	-	-
Aroclor1016	ND	0.0019	0.020	-	-	-
Aroclor1221	ND	0.0024	0.020	-	-	-
Aroclor1232	ND	0.0038	0.020	-	-	-
Aroclor1242	ND	0.0028	0.020	-	-	-
Aroclor1248	ND	0.0018	0.020	-	-	-
Aroclor1254	ND	0.0015	0.020	-	-	-
Aroclor1260	ND	0.0028	0.020	-	-	-
PCBs, total	ND	0.0015	0.020	-	-	-
Surrogate Recovery						
Decachlorobiphenyl	0.0445			0.050	89	70-130

(Cont.)

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Quality Control Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C07
Date Prepared:	1/24/18	**BatchID:**	152135
Date Analyzed:	1/25/18 - 1/26/18	**Extraction Method:**	E608/SW3620B
Instrument:	GC22	**Analytical Method:**	E608
Matrix:	Water	**Unit:**	µg/L
Project:	Semi-Annual	**Sample ID:**	MB/LCS/LCSD-152135

QC Summary Report for E608 w/ Florisil Clean-up

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Aldrin	0.0474	0.0463	0.050	95	93	42-122	2.33	20
a-BHC	0.0403	0.0394	0.050	81	79	37-134	2.06	20
b-BHC	0.0506	0.0497	0.050	101	99	17-147	1.78	20
d-BHC	0.0520	0.0505	0.050	104	101	19-140	2.89	20
g-BHC	0.0446	0.0438	0.050	89	88	32-127	1.85	20
a-Chlordane	0.0487	0.0465	0.050	97	93	40-140	4.79	20
g-Chlordane	0.0536	0.0522	0.050	107	104	40-140	2.54	20
p,p-DDD	0.0489	0.0475	0.050	98	95	31-141	2.76	20
p,p-DDE	0.0528	0.0513	0.050	106	103	30-145	2.85	20
p,p-DDT	0.0489	0.0474	0.050	98	95	25-160	3.15	20
Dieldrin	0.0532	0.0518	0.050	106	104	36-146	2.60	20
Endosulfan I	0.0495	0.0494	0.050	99	99	45-153	0	20
Endosulfan II	0.0512	0.0497	0.050	102	99	0-202	2.99	20
Endosulfan sulfate	0.0510	0.0496	0.050	102	99	26-144	2.73	20
Endrin	0.0469	0.0456	0.050	94	91	30-147	2.81	20
Endrin aldehyde	0.0430	0.0417	0.050	86	83	40-140	3.16	20
Endrin ketone	0.0545	0.0529	0.050	109	106	40-140	3.07	20
Heptachlor	0.0484	0.0479	0.050	97	96	34-111	1.11	20
Heptachlor epoxide	0.0480	0.0468	0.050	96	94	37-142	2.47	20
Methoxychlor	0.0494	0.0465	0.050	99	93	40-140	6.12	20
Aroclor1016	0.120	0.116	0.15	80	77	50-114	2.91	20
Aroclor1260	0.128	0.122	0.15	85	81	8-127	4.76	20
Surrogate Recovery								
Decachlorobiphenyl	0.0433	0.0422	0.050	87	85	70-130	2.40	20

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Quality Control Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C07
Date Prepared:	1/23/18	**BatchID:**	152113
Date Analyzed:	1/23/18	**Extraction Method:**	E624
Instrument:	GC28	**Analytical Method:**	E624
Matrix:	Water	**Unit:**	µg/L
Project:	Semi-Annual	**Sample ID:**	MB/LCS/LCSD-152113 1801B69-001NMS/MSD

QC Summary Report for E624

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Acrolein (Propenal)	ND	2.5	5.0	-	-	-
Acrylonitrile	ND	1.0	2.0	-	-	-
2-Chloroethyl Vinyl Ether	ND	0.50	1.0	-	-	-
Surrogate Recovery						
Dibromofluoromethane	26.6			25	106	83-139

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Acrolein (Propenal)	20.1	20.9	20	101	104	70-130	3.80	20
Acrylonitrile	20.1	22.6	20	100	113	70-130	11.8	20
2-Chloroethyl Vinyl Ether	19.5	19.8	20	98	99	70-130	1.43	20
Surrogate Recovery								
Dibromofluoromethane	26.9	26.9	25	107	107	83-139	0	20

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Acrolein (Propenal)	19.5	18.9	20	ND	98	95	70-130	3.21	20
Acrylonitrile	20.1	21.2	20	ND	101	106	70-130	5.29	20
2-Chloroethyl Vinyl Ether	18.6	19.0	20	ND	93	95	70-130	2.33	20
Surrogate Recovery									
Dibromofluoromethane	27.5	27.3	25		110	109	78-141	0.878	20

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Quality Control Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C07
Date Prepared:	1/23/18	**BatchID:**	152134
Date Analyzed:	1/23/18	**Extraction Method:**	E624
Instrument:	GC16	**Analytical Method:**	E624
Matrix:	Water	**Unit:**	µg/L
Project:	Semi-Annual	**Sample ID:**	MB/LCS/LCSD-152134 1801B69-001MMS/MSD

QC Summary Report for E624

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Benzene	ND	0.051	0.20	-	-	-
Bromodichloromethane	ND	0.20	0.50	-	-	-
Bromoform	ND	0.066	0.50	-	-	-
Bromomethane	ND	0.16	0.50	-	-	-
Carbon tetrachloride	ND	0.069	0.50	-	-	-
Chlorobenzene	ND	0.050	0.50	-	-	-
Chloroethane	ND	0.31	0.50	-	-	-
Chloroform	ND	0.064	0.50	-	-	-
Chloromethane	ND	0.13	0.50	-	-	-
Dibromochloromethane	ND	0.080	0.50	-	-	-
1,2-Dibromoethane (EDB)	ND	0.12	0.50	-	-	-
1,2-Dichlorobenzene	ND	0.080	0.50	-	-	-
1,3-Dichlorobenzene	ND	0.071	0.50	-	-	-
1,4-Dichlorobenzene	ND	0.072	0.50	-	-	-
1,1-Dichloroethane	ND	0.060	0.50	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.090	0.50	-	-	-
1,1-Dichloroethene	ND	0.086	0.50	-	-	-
trans-1,2-Dichloroethene	ND	0.060	0.50	-	-	-
1,2-Dichloropropane	ND	0.055	0.50	-	-	-
cis-1,3-Dichloropropene	ND	0.090	0.50	-	-	-
trans-1,3-Dichloropropene	ND	0.070	0.50	-	-	-
Ethylbenzene	ND	0.050	0.50	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.10	0.50	-	-	-
Methylene chloride	ND	0.052	0.50	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.11	0.50	-	-	-
Tetrachloroethene	ND	0.082	0.50	-	-	-
Toluene	ND	0.040	0.50	-	-	-
1,1,1-Trichloroethane	ND	0.050	0.50	-	-	-
1,1,2-Trichloroethane	ND	0.080	0.50	-	-	-
Trichloroethene	ND	0.060	0.50	-	-	-
Trichlorofluoromethane	ND	0.047	0.50	-	-	-
Vinyl chloride	ND	0.070	0.50	-	-	-
Xylenes, Total	ND	0.25	0.50	-	-	-
Surrogate Recovery						
Dibromofluoromethane	25.8			25	103	83-139
Toluene-d8	22.7			25	91	87-125
4-BFB	2.04			2.5	82	74-133

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Quality Control Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C07
Date Prepared:	1/23/18	**BatchID:**	152134
Date Analyzed:	1/23/18	**Extraction Method:**	E624
Instrument:	GC16	**Analytical Method:**	E624
Matrix:	Water	**Unit:**	µg/L
Project:	Semi-Annual	**Sample ID:**	MB/LCS/LCSD-152134 1801B69-001MMS/MSD

QC Summary Report for E624

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Benzene	8.60	8.82	10	86	88	37-151	2.57	20
Bromodichloromethane	8.29	8.42	10	83	84	35-155	1.61	20
Bromoform	7.09	7.53	10	71	75	45-169	6.02	20
Bromomethane	15.1	14.5	10	151	145	1-242	3.56	20
Carbon tetrachloride	9.43	9.60	10	94	96	70-140	1.87	20
Chlorobenzene	8.50	8.52	10	85	85	37-160	0	20
Chloroethane	9.43	9.22	10	94	92	14-230	2.23	20
Chloroform	9.00	9.18	10	90	92	51-138	1.96	20
Chloromethane	10.2	9.11	10	102	91	1-273	11.2	20
Dibromochloromethane	8.02	8.25	10	80	83	53-149	2.91	20
1,2-Dibromoethane (EDB)	7.36	7.57	10	74	76	62-127	2.79	20
1,2-Dichlorobenzene	8.36	8.33	10	84	83	18-190	0.406	20
1,3-Dichlorobenzene	8.87	8.94	10	89	89	59-156	0	20
1,4-Dichlorobenzene	8.37	8.50	10	84	85	18-190	1.45	20
1,1-Dichloroethane	8.73	8.94	10	87	89	70-130	2.37	20
1,2-Dichloroethane (1,2-DCA)	8.86	9.10	10	89	91	49-155	2.61	20
1,1-Dichloroethene	8.44	8.58	10	84	86	1-234	1.70	20
trans-1,2-Dichloroethene	8.65	8.90	10	87	89	54-156	2.86	20
1,2-Dichloropropane	8.38	8.40	10	84	84	1-210	0	20
cis-1,3-Dichloropropene	7.61	7.88	10	76	79	1-227	3.53	20
trans-1,3-Dichloropropene	8.60	8.91	10	86	89	17-183	3.49	20
Ethylbenzene	8.65	8.64	10	86	86	37-162	0	20
Methyl-t-butyl ether (MTBE)	8.63	9.09	10	86	91	70-130	5.18	20
Methylene chloride	8.60	8.84	10	86	88	1-221	2.80	20
1,1,2,2-Tetrachloroethane	6.62	7.05	10	66	71	46-157	6.28	20
Tetrachloroethene	7.50	7.64	10	75	76	64-148	1.81	20
Toluene	8.09	8.24	10	81	82	47-150	1.87	20
1,1,1-Trichloroethane	8.93	9.15	10	89	91	52-162	2.45	20
1,1,2-Trichloroethane	7.33	7.69	10	73	77	52-150	4.79	20
Trichloroethene	8.21	8.33	10	82	83	71-157	1.51	20
Trichlorofluoromethane	9.70	9.94	10	97	99	17-181	2.46	20
Vinyl chloride	10.1	9.52	10	101	95	1-251	5.78	20
Xylenes, Total	25.7	25.6	30	86	85	59-128	0.240	20
Surrogate Recovery								
Dibromofluoromethane	24.9	25.1	25	100	100	83-139	0	20
Toluene-d8	23.4	23.8	25	94	95	87-125	1.34	20
4-BFB	2.15	2.10	2.5	86	84	74-133	2.15	20

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Quality Control Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C07
Date Prepared:	1/23/18	**BatchID:**	152134
Date Analyzed:	1/23/18	**Extraction Method:**	E624
Instrument:	GC16	**Analytical Method:**	E624
Matrix:	Water	**Unit:**	µg/L
Project:	Semi-Annual	**Sample ID:**	MB/LCS/LCSD-152134 1801B69-001MMS/MSD

QC Summary Report for E624

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Benzene	8.78	8.68	10	ND	88	87	37-151	1.09	20
Bromodichloromethane	8.47	8.46	10	ND	85	85	35-155	0	20
Bromoform	7.62	7.63	10	ND	76	76	45-169	0	20
Bromomethane	16.0	15.7	10	ND	160	157	1-242	1.72	20
Carbon tetrachloride	9.03	9.15	10	ND	90	92	70-140	1.35	20
Chlorobenzene	8.26	8.35	10	ND	83	83	37-160	0	20
Chloroethane	10.2	9.85	10	ND	102	99	14-230	3.07	20
Chloroform	9.13	9.10	10	ND	91	91	51-138	0	20
Chloromethane	9.57	9.41	10	ND	96	94	1-273	1.63	20
Dibromochloromethane	8.10	8.19	10	ND	81	82	53-149	1.16	20
1,2-Dibromoethane (EDB)	7.71	7.75	10	ND	77	78	62-127	0.561	20
1,2-Dichlorobenzene	8.34	8.63	10	ND	83	86	18-190	3.34	20
1,3-Dichlorobenzene	8.74	8.99	10	ND	87	90	59-156	2.82	20
1,4-Dichlorobenzene	8.07	8.30	10	ND	81	83	18-190	2.74	20
1,1-Dichloroethane	8.79	8.74	10	ND	88	87	70-130	0.491	20
1,2-Dichloroethane (1,2-DCA)	9.20	9.24	10	ND	92	92	49-155	0	20
1,1-Dichloroethene	8.36	8.42	10	ND	84	84	1-234	0	20
trans-1,2-Dichloroethene	8.75	8.78	10	ND	88	88	54-156	0	20
1,2-Dichloropropane	8.53	8.50	10	ND	85	85	1-210	0	20
cis-1,3-Dichloropropene	7.43	7.43	10	ND	74	74	1-227	0	20
trans-1,3-Dichloropropene	8.79	8.80	10	ND	88	88	17-183	0	20
Ethylbenzene	8.27	8.33	10	ND	83	83	37-162	0	20
Methyl-t-butyl ether (MTBE)	9.66	9.76	10	ND	97	98	70-130	0.986	20
Methylene chloride	9.01	8.91	10	ND	90	89	1-221	1.13	20
1,1,2,2-Tetrachloroethane	7.30	7.44	10	ND	73	74	46-157	1.92	20
Tetrachloroethene	6.95	6.87	10	ND	69	69	64-148	0	20
Toluene	7.83	7.87	10	ND	77	78	47-150	0.545	20
1,1,1-Trichloroethane	8.70	8.80	10	ND	87	88	52-162	1.15	20
1,1,2-Trichloroethane	7.79	7.75	10	ND	78	77	52-150	0.525	20
Trichloroethene	8.06	8.01	10	ND	81	80	71-157	0.608	20
Trichlorofluoromethane	9.28	9.43	10	ND	93	94	17-181	1.62	20
Vinyl chloride	10.1	9.77	10	ND	101	98	1-251	3.71	20
Xylenes, Total	24.7	24.8	30	ND	82	83	59-128	0.355	20
Surrogate Recovery									
Dibromofluoromethane	25.1	25.1	25		100	100	83-139	0	20
Toluene-d8	23.0	22.7	25		92	91	87-125	1.29	20
4-BFB	1.95	2.04	2.5		78	81	74-133	4.12	20

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Quality Control Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C07
Date Prepared:	1/24/18	**BatchID:**	152115
Date Analyzed:	1/24/18	**Extraction Method:**	E625
Instrument:	GC21	**Analytical Method:**	E625
Matrix:	Water	**Unit:**	µg/L
Project:	Semi-Annual	**Sample ID:**	MB/LCS/LCSD-152115

QC Summary Report for E625

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Acenaphthene	ND	0.010	0.010	-	-	-
Acenaphthylene	ND	0.010	0.010	-	-	-
Anthracene	ND	0.010	0.010	-	-	-
Benzidine	ND	0.29	5.0	-	-	-
Benzo (a) anthracene	ND	0.10	0.10	-	-	-
Benzo (a) pyrene	ND	0.0050	0.0050	-	-	-
Benzo (b) fluoranthene	ND	0.0050	0.0050	-	-	-
Benzo (g,h,i) perylene	ND	0.050	0.050	-	-	-
Benzo (k) fluoranthene	ND	0.0050	0.0050	-	-	-
Bis (2-chloroethoxy) Methane	ND	0.30	2.0	-	-	-
Bis (2-chloroethyl) Ether	ND	0.0050	0.0050	-	-	-
Bis (2-chloroisopropyl) Ether	ND	0.010	0.010	-	-	-
Bis (2-ethylhexyl) Adipate	ND	0.50	1.0	-	-	-
Bis (2-ethylhexyl) Phthalate	ND	0.050	0.050	-	-	-
4-Bromophenyl Phenyl Ether	ND	0.17	1.0	-	-	-
Butylbenzyl Phthalate	ND	0.29	1.0	-	-	-
4-Chloro-3-methylphenol	ND	0.27	1.0	-	-	-
2-Chloronaphthalene	ND	0.25	1.0	-	-	-
2-Chlorophenol	ND	0.050	0.050	-	-	-
4-Chlorophenyl Phenyl Ether	ND	0.20	1.0	-	-	-
Chrysene	ND	0.010	0.010	-	-	-
Dibenzo (a,h) anthracene	ND	0.010	0.010	-	-	-
Di-n-butyl Phthalate	ND	0.30	1.0	-	-	-
1,2-Dichlorobenzene	ND	0.23	1.0	-	-	-
1,3-Dichlorobenzene	ND	0.22	1.0	-	-	-
1,4-Dichlorobenzene	ND	0.050	0.050	-	-	-
3,3-Dichlorobenzidine	ND	0.010	0.010	-	-	-
2,4-Dichlorophenol	ND	0.020	0.020	-	-	-
Diethyl Phthalate	ND	0.020	0.020	-	-	-
2,4-Dimethylphenol	ND	0.050	0.050	-	-	-
Dimethyl Phthalate	ND	0.020	0.020	-	-	-
4,6-Dinitro-2-methylphenol	ND	0.98	5.0	-	-	-
2,4-Dinitrophenol	ND	0.50	0.50	-	-	-
2,4-Dinitrotoluene	ND	0.50	0.50	-	-	-
2,6-Dinitrotoluene	ND	0.20	0.20	-	-	-
Di-n-octyl Phthalate	ND	0.25	0.25	-	-	-
Fluoranthene	ND	0.050	0.050	-	-	-
Fluorene	ND	0.010	0.010	-	-	-
Hexachlorobenzene	ND	0.0050	0.0050	-	-	-

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Quality Control Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C07
Date Prepared:	1/24/18	**BatchID:**	152115
Date Analyzed:	1/24/18	**Extraction Method:**	E625
Instrument:	GC21	**Analytical Method:**	E625
Matrix:	Water	**Unit:**	µg/L
Project:	Semi-Annual	**Sample ID:**	MB/LCS/LCSD-152115

QC Summary Report for E625

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Hexachlorobutadiene	ND	0.010	0.010	-	-	-
Hexachlorocyclopentadiene	ND	1.2	1.2	-	-	-
Hexachloroethane	ND	0.010	0.010	-	-	-
Indeno (1,2,3-cd) pyrene	ND	0.020	0.020	-	-	-
Isophorone	ND	0.32	1.0	-	-	-
2-Methylphenol (o-cresol)	ND	0.19	1.0	-	-	-
3 & 4-Methylphenol (m,p-Cresol)	ND	0.19	1.0	-	-	-
Naphthalene	ND	0.010	0.010	-	-	-
2-Nitroaniline	ND	1.3	5.0	-	-	-
Nitrobenzene	ND	0.32	1.0	-	-	-
2-Nitrophenol	ND	1.4	5.0	-	-	-
4-Nitrophenol	ND	1.7	5.0	-	-	-
N-Nitrosodiphenylamine	ND	0.18	1.0	-	-	-
N-Nitrosodi-n-propylamine	ND	0.25	0.25	-	-	-
Pentachlorophenol	ND	0.50	0.50	-	-	-
Phenanthrene	ND	0.050	0.050	-	-	-
Phenol	ND	0.050	0.050	-	-	-
Pyrene	ND	0.050	0.050	-	-	-
1,2,4-Trichlorobenzene	ND	0.22	1.0	-	-	-
2,4,5-Trichlorophenol	ND	0.10	0.10	-	-	-
2,4,6-Trichlorophenol	ND	0.10	0.10	-	-	-
N-Nitrosodimethylamine	ND	0.74	5.0	-	-	-
Surrogate Recovery						
2-Fluorophenol	19.1			20	95	29-140
Phenol-d5	20.7			20	104	38-148
Nitrobenzene-d5	17.4			20	87	31-152
2-Fluorobiphenyl	16.8			20	84	40-140
2,4,6-Tribromophenol	19.0			20	95	39-150
Terphenyl-d14	16.5			20	82	38-147

(Cont.)

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Quality Control Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C07
Date Prepared:	1/24/18	**BatchID:**	152115
Date Analyzed:	1/24/18	**Extraction Method:**	E625
Instrument:	GC21	**Analytical Method:**	E625
Matrix:	Water	**Unit:**	µg/L
Project:	Semi-Annual	**Sample ID:**	MB/LCS/LCSD-152115

QC Summary Report for E625

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Acenaphthene	8.28	8.92	10	83	89	47-145	7.35	20
Acenaphthylene	8.58	9.20	10	86	92	33-145	6.97	20
Anthracene	8.31	8.63	10	83	86	27-133	3.86	20
Benzidine	40.2	42.0	50	80	84	43-106	4.27	20
Benzo (a) anthracene	8.56	8.85	10	86	88	33-143	3.30	20
Benzo (a) pyrene	9.20	9.59	10	92	96	17-163	4.22	20
Benzo (b) fluoranthene	8.81	9.37	10	88	94	24-159	6.12	20
Benzo (g,h,i) perylene	8.82	9.04	10	88	90	1-219	2.45	20
Benzo (k) fluoranthene	9.14	9.48	10	91	95	11-162	3.61	20
Bis (2-chloroethoxy) Methane	8.66	9.70	10	87	97	33-184	11.3	20
Bis (2-chloroethyl) Ether	8.52	9.34	10	85	93	12-158	9.14	20
Bis (2-chloroisopropyl) Ether	9.02	10.0	10	90	100	36-166	10.6	20
Bis (2-ethylhexyl) Adipate	8.80	9.31	10	88	93	55-122	5.65	20
Bis (2-ethylhexyl) Phthalate	8.53	8.93	10	85	89	8-158	4.55	20
4-Bromophenyl Phenyl Ether	8.48	8.96	10	85	90	53-127	5.50	20
Butylbenzyl Phthalate	9.06	9.41	10	91	94	1-152	3.77	20
4-Chloro-3-methylphenol	9.12	9.62	10	91	96	22-147	5.40	20
2-Chloronaphthalene	9.28	10.2	10	93	102	60-118	9.23	20
2-Chlorophenol	8.99	9.81	10	90	98	23-134	8.73	20
4-Chlorophenyl Phenyl Ether	8.22	8.80	10	82	88	25-158	6.89	20
Chrysene	8.54	9.01	10	85	90	17-168	5.37	20
Dibenzo (a,h) anthracene	8.95	9.16	10	89	92	1-227	2.33	20
Di-n-butyl Phthalate	8.49	8.36	10	85	84	1-118	1.56	20
1,2-Dichlorobenzene	7.99	8.90	10	80	89	32-129	10.8	20
1,3-Dichlorobenzene	8.08	9.16	10	81	92	1-172	12.6	20
1,4-Dichlorobenzene	7.81	8.70	10	78	87	20-124	10.8	20
3,3-Dichlorobenzidine	9.82	10.4	10	98	104	1-262	6.14	20
2,4-Dichlorophenol	9.33	10.0	10	93	100	39-135	7.27	20
Diethyl Phthalate	8.29	8.80	10	83	88	1-114	5.86	20
2,4-Dimethylphenol	10.4	10.8	10	103	108	32-119	4.61	20
Dimethyl Phthalate	8.48	9.09	10	85	91	1-112	6.97	20
4,6-Dinitro-2-methylphenol	44.0	45.3	50	88	91	59-123	3.01	20
2,4-Dinitrophenol	41.4	43.7	50	83	87	1-191	5.37	20
2,4-Dinitrotoluene	9.40	10.1	10	94	101	39-139	6.81	20
2,6-Dinitrotoluene	9.18	9.92	10	92	99	50-158	7.68	20
Di-n-octyl Phthalate	8.91	9.41	10	89	94	4-146	5.44	20
Fluoranthene	8.49	8.81	10	85	88	26-137	3.69	20
Fluorene	8.73	9.35	10	87	93	59-121	6.85	20
Hexachlorobenzene	7.98	8.19	10	80	82	1-152	2.58	20

(Cont.)

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Quality Control Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C07
Date Prepared:	1/24/18	**BatchID:**	152115
Date Analyzed:	1/24/18	**Extraction Method:**	E625
Instrument:	GC21	**Analytical Method:**	E625
Matrix:	Water	**Unit:**	µg/L
Project:	Semi-Annual	**Sample ID:**	MB/LCS/LCSD-152115

QC Summary Report for E625

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Hexachlorobutadiene	7.78	8.53	10	78	85	24-116	9.19	20
Hexachlorocyclopentadiene	40.1	44.1	50	80	88	36-109	9.46	20
Hexachloroethane	7.72	8.65	10	77	86	40-113	11.4	20
Indeno (1,2,3-cd) pyrene	8.55	8.71	10	85	87	1-171	1.93	20
Isophorone	8.59	9.25	10	86	93	21-196	7.39	20
2-Methylphenol (o-cresol)	8.33	9.51	10	83	95	55-121	13.2	20
3 & 4-Methylphenol (m,p-Cresol)	9.33	10.5	10	93	105	58-121	12.1	20
Naphthalene	7.81	8.53	10	78	85	21-133	8.78	20
2-Nitroaniline	47.3	48.9	50	95	98	65-124	3.38	20
Nitrobenzene	8.56	9.54	10	86	95	35-180	10.9	20
2-Nitrophenol	45.2	48.7	50	90	97	29-182	7.46	20
4-Nitrophenol	39.4	43.3	50	79	87	1-132	9.54	20
N-Nitrosodiphenylamine	8.47	8.90	10	85	89	67-132	5.01	20
N-Nitrosodi-n-propylamine	9.37	10.3	10	94	103	1-230	9.70	20
Pentachlorophenol	16.9	17.8	20	84	89	14-176	5.29	20
Phenanthrene	7.95	8.07	10	79	81	54-120	1.52	20
Phenol	8.75	9.55	10	88	96	5-112	8.74	20
Pyrene	8.77	9.18	10	88	92	52-115	4.59	20
1,2,4-Trichlorobenzene	7.67	8.79	10	77	88	44-142	13.6	20
2,4,5-Trichlorophenol	9.26	9.89	10	93	99	62-124	6.63	20
2,4,6-Trichlorophenol	8.81	9.35	10	88	94	37-144	5.95	20
N-Nitrosodimethylamine	43.0	48.1	50	86	96	45-111	11.2	20
Surrogate Recovery								
2-Fluorophenol	16.6	19.6	20	83	98	29-140	16.7	20
Phenol-d5	18.5	20.7	20	92	103	38-148	11.1	20
Nitrobenzene-d5	17.4	19.2	20	87	96	31-152	10.0	20
2-Fluorobiphenyl	16.1	17.3	20	81	87	40-140	7.15	20
2,4,6-Tribromophenol	20.6	22.6	20	103	113	39-150	9.23	20
Terphenyl-d14	17.2	18.4	20	86	92	38-147	6.52	20

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Quality Control Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C07
Date Prepared:	1/30/18	**BatchID:**	152419
Date Analyzed:	1/30/18	**Extraction Method:**	E350.1
Instrument:	WC_SKALAR	**Analytical Method:**	E350.1
Matrix:	Water	**Unit:**	mg/L
Project:	Semi-Annual	**Sample ID:**	MB/LCS-152419 1801C07-001BMS/MSD

QC Summary Report for E350.1

Analyte	MB Result	LCS Result	MDL	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Ammonia, total as N	ND	4.23	0.020	0.10	4	-	106	88-113

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Ammonia, total as N	7.91	7.59	4	3.5	110	102	88-113	4.14	20

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Quality Control Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C07
Date Prepared:	1/24/18	**BatchID:**	152129
Date Analyzed:	1/24/18	**Extraction Method:**	Kelada-01
Instrument:	WC_SKALAR	**Analytical Method:**	Kelada-01
Matrix:	Water	**Unit:**	µg/L
Project:	Semi-Annual	**Sample ID:**	MB/LCS-152129 1801B42-002AMS/MSD

QC Summary Report for Kelada-01

Analyte	MB Result	LCS Result	MDL	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Total Cyanide	ND	41.6	1.0	1.0	40	-	104	80-120

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Total Cyanide	40.3	42.0	40	ND	101	105	80-120	4.16	20

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Quality Control Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C07
Date Prepared:	1/30/18	**BatchID:**	152447
Date Analyzed:	1/30/18	**Extraction Method:**	E420.4
Instrument:	WC_SKALAR	**Analytical Method:**	E420.4
Matrix:	Water	**Unit:**	µg/L
Project:	Semi-Annual	**Sample ID:**	MB/LCS-152447

QC Summary Report for E420.4

Analyte	MB Result	LCS Result	MDL	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Phenolics	ND	37.9	0.51	2.0	40	-	95	80-120

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1801C07 **ClientCode: GOA**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☑ J-flag
☐ Detection Summary ☐ Dry-Weight

Report to:
David Frandsen
NRG Energy, LLC
3201 Wilbur Avenue
Antioch, CA 94509
(925) 427-3479 FAX: (925) 779-6679

Email: David.Frandsen@nrg.com; Kathy.crist@nrg
cc/3rd Party: joe.moura@nrg.com; james.robinson@nrg.
PO: 4501679786
Project: Semi-Annual

Bill to:
Accounts Payable
NRG
112 Telly Street
New Roads, LA 70760
invoices@nrg.com

Requested TAT: 5 days;

Date Received: **01/23/2018**
Date Logged: **01/23/2018**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1801C07-001	FAC Combined Wastewater	Water	1/23/2018 14:10	☐	C	E	D	F	B	A	B					

Test Legend:

1	608_W [J]	2	624_W	3	624ACR+2CEVE_W	4	625_W
5	AMMONIA_W	6	CN_W	7	PHENOLICS_W	8	
9		10		11		12	

Prepared by: Alexandra Iniguez

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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WORK ORDER SUMMARY

Client Name: NRG ENERGY, LLC **Project:** Semi-Annual **Work Order:** 1801C07
Client Contact: David Frandsen **QC Level:** LEVEL 2
Contact's Email: David.Frandsen@nrg.com; Kathy.crist@nrg.com; **Comments:** **Date Logged:** 1/23/2018

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☑ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1801C07-001A	FAC Combined Wastewater	Water	Kelada-01 (Cyanide, Total)	1	250mL HDPE w/ NaOH	☐	1/23/2018 14:10	5 days	Present	☐	
1801C07-001B	FAC Combined Wastewater	Water	E420.4 (Phenolics)	2	500mL aG w/ H2SO4	☐	1/23/2018 14:10	5 days	Present	☐	
			E350.1 (Ammonia)			☐		5 days	Present	☐	
1801C07-001C	FAC Combined Wastewater	Water	E608 (OC Pesticides+PCBs w/ Florisil Clean-up)	1	1LA Narrow Mouth, Unpres	☐	1/23/2018 14:10	5 days	Present	☐	
1801C07-001D	FAC Combined Wastewater	Water	E624 (ACRO, ACRY, & 2-CEVE)	2	VOA, Unpres	☐	1/23/2018 14:10	5 days	Present	☐	
1801C07-001E	FAC Combined Wastewater	Water	E624 (VOCs)	2	VOA w/ HCl	☐	1/23/2018 14:10	5 days	Present	☐	
1801C07-001F	FAC Combined Wastewater	Water	E625 (SVOCs)	1	1LA Narrow Mouth, Unpres	☐	1/23/2018 14:10	5 days	Present	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

1801C07

Chain of Custody

Page 1 of 12

Marsh Landing Generating Station
3201 Wilbur Avenue, P.O. Box 1687, Antioch, CA 94509
Phone: (925) 779-6500 Fax: (925) 779-6509

SAMPLES SUBMITTED TO		SEND INVOICE TO		PROJECT	
Laboratory:	McCampbell Analytical, Inc.	Company:	NRG Energy, Inc	Plant:	Marsh Landing
Attention:		Attention:	Sandra Herndon	Title	DDSD
Address:	1534 Willow Pass Road, Pittsburg, CA 94565-1701	Address:	112 Tully St New Roads, LA 70760	Phase:	Semi-Annual
Phone/Fax:	925.252.9262/ 925.252.9269	P.O.No.:	4501808523	Manager:	David Frandsen

SAMPLE INFORMATION								CONTAINER INFORMATION				ANALYSIS REQUEST			
Sample Number	Sample Date	Sample Collection Time	Regulatory Driver	Regulatory Frequency	Sample Medium	Sample Type	Sample Description	Number	Type	Volume (each, mL)	Preserv.	Cyanide[1] (Kelada-01)	Phenols (EPA Method 420.4)	Ammonia as N (EPA Method 350.1)	
ML-18-025	23-Jan-18	1410	DDSD	Semi-Annual	Wastewater	Grab	FAC Combined Wastewater	1	HDPE Bottle	250	HNO3 (pH<2)	X			
ML-18-026	23-Jan-18	1	DDSD	Semi-Annual	Wastewater	Grab	FAC Combined Wastewater	1	Amber Glass Jar	500	H_2SO_4 (pH<2, 4°C)		X		
ML-18-027	23-Jan-18		DDSD	Semi-Annual	Wastewater	C-24	FAC Combined Wastewater	1	Amber Glass Jar	500	H_2SO_4 (pH<2, 4°C)			X	
											HOLDING TIME:	14 days	28 days	28 days	

REPORTING		LABORATORY NOTES RE: SAMPLE RECEIPT/CONDITION	DIRECTIONS FOR LABORATORY
Original to:	David Frandsen	Cyanide sample pretreated with sodium thiosulfate prior to preservation with sodium hydroxide.	STANDARD TAT (5-day). Establish calibration standards so Minimum Level (ML) value is the lowest calibration standard, the lowest quantifiable concentration or Reporting Limit (RL). Report "Detected, but Not Quantified" (DNQ) with estimated J-flagged concentrations below the RL and include method detection limits (MDLs) in report. 1. Cyanide sample was pretreated with sodium thiosulfate prior to preservation with sodium hydroxide. *Include sample description with client sample ID. Invoice per quote 7224
Title:	Environmental Specialist/Engineer		
Address:	P.O. Box 1687 Antioch, CA 94509		
Phone/Fax:	925.324-3533/8509		
E-mail:	david.frandsen@nrg.com		
E-mail CC:	james.robinson@nrg.com		
E-mail CC:	joe.moura@nrg.com		
E-mail CC:	xang.moua@nrg.com		
E-mail CC:	doug.achterberg@nrg.com		
E-mail CC:	kathy.crist@nrg.com		

	PRINTED NAME	SIGNATURE	COMPANY	DATE	TIME
Sampled by	James Robinson	James E. Robinson	NRG-Marsh Landing Generating Station	23-Jan-18 JEB	~~1547~~ 1410
Relinquished by	James Robinson	James E. Robinson	NRG	23-Jan-18	1547
Received by	Alexandra L.		MAI	1/23/18	1547
Relinquished by:					
Received by:					
Relinquished by					
Received by					

1801C07

Chain of Custody

Page 27 of 42

Marsh Landing Generating Station
3201 Wilbur Avenue, P.O. Box 1687, Antioch, CA94509
Phone: (925) 779-6500 Fax: (925) 779-6509

SAMPLES SUBMITTED TO		SEND INVOICE TO		PROJECT		ANALYSIS REQUEST
Laboratory	McCampbell Analytical, Inc.	Company	NRG Energy, Inc	Plant	Marsh Landing	
Attention		Attention	SandraHerndon	Title	DDSD	
Address	1534 Willow Pass Road, Pittsburg, CA 94565-1701	Address	112 Tally St New Roads, LA 70760	Phase	Semi-Annual	
Phone/Fax	925.252.9262/ 925.252.9269	P.O. No.	4501808523	Manager	David Frandsen	

SAMPLE INFORMATION								CONTAINER INFORMATION				Pesticides & PCBs (EPA Method 608)	Volatile Organics (EPA Method 624)	Volatile Organics* (EPA Method 624)	Semi-Volatile Organics (EPA Method 625)
Sample Number	Sample Date	Sample Collection Time	Regulatory Driver	Regulatory Frequency	Sample Medium	Sample Type	Sample Description	Number	Type	Volume (each, mL)	Preserv.				
ML-18-028	23-Jan-18	1410	DDSD	Semi-Annual	Water	Grab	FAC Combined Wastewater	1	Amber Glass	1,000	None (4C)	X			
ML-18-029	23-Jan-18		DDSD	Semi-Annual	Water	Grab	FAC Combined Wastewater	2	Clear VOA	43	HCL (ZHS, pH<2, 4°C)		X		
ML-18-030	23-Jan-18		DDSD	Semi-Annual	Water	Grab	FAC Combined Wastewater	2	Clear VOA	43	None (4°C)			X	
ML-18-031	23-Jan-18		DDSD	Semi-Annual	Water	Grab	FAC Combined Wastewater	1	Amber Glass	1,000	None (4°C)				X
											HOLDING TIME:	40 days	14 days	3 days	40 days

* For composite samples, the completion time of the 24-hr composite or the time of the final sample aliquot is considered the "sample collection time" for the purpose of determining sample holding time

REPORTING		LABORATORY NOTES RE: SAMPLE RECEIPT/CONDITION	DIRECTIONS FOR LABORATORY
Original to	David Frandsen		Standard TAT (5-DAYS). Establish calibration standards so Minimum Level (ML) value is the lowest calibration standard, the lowest quantifiable concentration or Reporting Limit (RL). Report "Detected, but Not Quantified" (DNQ) with estimated J-flagged concentrations below the RL and include method detection limits (MDLs) in report.
Title	Environmental Specialist/Engineer		1. VOCs- Acrolein, acrylonitrile, and 2cleave
Address	P.O. Box 1687 Antioch, CA 94509		
Phone/Fax	925.324-3533/6509		
E-mail	david.frandsen@nrg.com		*Include sample description with client sample ID.
E-mail CC	james.robinson@nrg.com		Invoice per quote 7224
E-mail CC	joe.moura@nrg.com		
E-mail CC	kathy.crist@nrg.com		
E-mail CC	harry.bobis@nrg.com		

	PRINTED NAME	SIGNATURE	COMPANY	DATE	TIME
Sampled by	James Robinson	James E. Robinson	NRG-Marsh Landing Generating Station	23-Jan-18 (JER)	15:47 1410
Relinquished by	James Robinson	James E. Robinson	NRG	23-Jan-18	1547
Received by	Alexandra L.		MAI	1/23/18	1547
Relinquished by					
Received by					
Relinquished by					
Received by					

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Sample Receipt Checklist

Client Name: **NRG Energy, LLC**
Project: **Semi-Annual**

WorkOrder №: **1801C07** Matrix: Water
Carrier:

Date and Time Received: **1/23/2018 15:47**
Date Logged: **1/23/2018**
Received by: Alexandra Iniguez
Logged by: Alexandra Iniguez

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Sample IDs noted by Client on COC?	Yes ☑	No ☐	
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐	
Sampler's name noted on COC?	Yes ☑	No ☐	
COC agrees with Quote?	Yes ☐	No ☐	NA ☑

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	NA ☐
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	NA ☐
Sample/Temp Blank temperature	Temp: 5.6°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☐	No ☐	NA ☑
Sample labels checked for correct preservation?	Yes ☑	No ☐	
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

UCMR Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522?	Yes ☐	No ☐	NA ☑
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539?	Yes ☐	No ☐	NA ☑

Comments:

McCampbell Analytical, Inc.
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Analytical Report

WorkOrder: 1801C09

Report Created for: NRG Energy, LLC

3201 Wilbur Avenue
Antioch, CA 94509

Project Contact: David Frandsen
Project P.O.: 4501808523
Project: Quarterly

Project Received: 01/23/2018

Analytical Report reviewed & approved for release on 01/30/2018 by:

Yen Cao
Project Manager

McCampbell Analytical, Inc.
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1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: NRG Energy, LLC
Project: Quarterly
WorkOrder: 1801C09

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

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Glossary of Terms & Qualifier Definitions

Client: NRG Energy, LLC
Project: Quarterly
WorkOrder: 1801C09

Analytical Qualifiers

J	Result is less than the RL/ML but greater than the MDL. The reported concentration is an estimated value.
j1	See attached narrative.

Quality Control Qualifiers

F10	MS/MSD outside control limits. Physical or chemical interferences exist due to sample matrix.

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Case Narrative

Client: NRG Energy, LLC
Project: Quarterly

Work Order: 1801C09
January 29, 2018

Our standard ICP-MS analytical procedure is to analyze selenium using the Reaction mode.

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Analytical Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C09
Date Received:	1/23/18 15:47	**Extraction Method:**	SM5210B
Date Prepared:	1/24/18	**Analytical Method:**	SM5210 B-2001
Project:	Quarterly	**Unit:**	mg/L

Biochemical Oxygen Demand (BOD)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	**1801C09-001B**	**Water**	**01/23/2018 14:10**	**WetChem**	**152158**

Analytes	Result	MDL	RL	DF	Date Analyzed
BOD	ND	4.0	4.0	1	01/29/2018 14:45

Analyst(s): AL

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Analytical Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C09
Date Received:	1/23/18 15:47	**Extraction Method:**	SM5220 D-1997
Date Prepared:	1/26/18	**Analytical Method:**	SM5220 D-1997
Project:	Quarterly	**Unit:**	mg/L

Chemical Oxygen Demand (COD) as mg O2 /L

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	**1801C09-001A**	**Water**	**01/23/2018 14:10**	**SPECTROPHOTOMETER**	**152266**

Analytes	Result	MDL	RL	DF	Date Analyzed
COD	**20**	7.2	10	1	01/26/2018 09:10

Analyst(s): RB

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Analytical Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C09
Date Received:	1/23/18 15:47	**Extraction Method:**	E200.8
Date Prepared:	1/25/18	**Analytical Method:**	E200.8
Project:	Quarterly	**Unit:**	µg/L

Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	**1801C09-001E**	**Water**	**01/23/2018 14:10**	**ICP-MS1 070SMPL.D**	**152257**

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
Arsenic	**0.51**		0.19	0.50	1	01/26/2018 15:19
Cadmium	ND		0.040	0.25	1	01/26/2018 15:19
Chromium	**0.29**	J	0.14	0.50	1	01/26/2018 15:19
Copper	**4.7**		0.10	2.0	1	01/26/2018 15:19
Iron	**110**		4.4	20	1	01/26/2018 15:19
Lead	**0.14**	J	0.078	0.50	1	01/26/2018 15:19
Mercury	ND		0.010	0.050	1	01/26/2018 15:19
Molybdenum	**0.83**		0.26	0.50	1	01/26/2018 15:19
Nickel	**2.6**		0.18	0.50	1	01/26/2018 15:19
Selenium	ND		0.15	0.50	1	01/26/2018 15:19
Silver	ND		0.025	0.19	1	01/26/2018 15:19
Zinc	**91**		5.0	15	1	01/26/2018 15:19

Surrogates	REC (%)	Limits	
Terbium	116	70-130	01/26/2018 15:19

Analyst(s): JC

Analytical Comments: j1

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Analytical Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C09
Date Received:	1/23/18 15:47	**Extraction Method:**	SM2540 C-1997
Date Prepared:	1/23/18	**Analytical Method:**	SM2540 C-1997
Project:	Quarterly	**Unit:**	mg/L

Total Dissolved Solids

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	**1801C09-001C**	**Water**	**01/23/2018 14:10**	**WetChem**	**152106**

Analytes	Result	MDL	RL	DF	Date Analyzed
Total Dissolved Solids	**194**	10.0	10.0	1	01/24/2018 07:05

Analyst(s): RB

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Analytical Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C09
Date Received:	1/23/18 15:47	**Extraction Method:**	SM2540 D-1997
Date Prepared:	1/24/18	**Analytical Method:**	SM2540 D-1997
Project:	Quarterly	**Unit:**	mg/L

Total Suspended Solids

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	**1801C09-001D**	**Water**	**01/23/2018 14:10**	**WetChem**	**152142**

Analytes	Result	MDL	RL	DF	Date Analyzed
Total Suspended Solids	**2.00**	1.00	1.00	1	01/24/2018 14:40

Analyst(s): AL

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Quality Control Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C09
Date Prepared:	1/24/18	**BatchID:**	152158
Date Analyzed:	1/29/18	**Extraction Method:**	SM5210B
Instrument:	WetChem	**Analytical Method:**	SM5210 B-2001
Matrix:	Water	**Unit:**	mg/L
Project:	Quarterly	**Sample ID:**	MB/LCS/LCSD-152158

QC Summary Report for BOD

Analyte	MB Result	MDL	RL			
BOD	ND	4.0	4.0	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
BOD	184	204	198	93	103	80-120	10.0	16

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Quality Control Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C09
Date Prepared:	1/26/18	**BatchID:**	152266
Date Analyzed:	1/26/18	**Extraction Method:**	SM5220 D-1997
Instrument:	SPECTROPHOTOMETER	**Analytical Method:**	SM5220 D-1997
Matrix:	Water	**Unit:**	mg/L
Project:	Quarterly	**Sample ID:**	MB/LCS-152266 1801C18-001FMS/MSD

QC Summary Report for COD

Analyte	MB Result	LCS Result	MDL	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
COD	ND	92.0	7.2	10	100	-	92	90-110

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
COD	NR	NR		12000	NR	NR	-	NR	-

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Quality Control Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C09
Date Prepared:	1/25/18	**BatchID:**	152257
Date Analyzed:	1/26/18	**Extraction Method:**	E200.8
Instrument:	ICP-MS2	**Analytical Method:**	E200.8
Matrix:	Water	**Unit:**	µg/L
Project:	Quarterly	**Sample ID:**	MB/LCS-152257 1801B29-009AMS/MSD

QC Summary Report for Metals

Analyte	MB Result	LCS Result	MDL	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Arsenic	ND	52.1	0.19	0.50	50	-	104	85-115
Cadmium	ND	53.3	0.040	0.25	50	-	107	85-115
Chromium	ND	53.9	0.14	0.50	50	-	108	85-115
Copper	0.134,J	53.6	0.10	2.0	50	-	107	85-115
Iron	7.50,J	5260	4.4	20	5000	-	105	85-115
Lead	ND	50.8	0.078	0.50	50	-	101	85-115
Mercury	ND	1.28	0.010	0.050	1.25	-	102	85-115
Molybdenum	ND	49.9	0.26	0.50	50	-	100	85-115
Nickel	ND	53.0	0.18	0.50	50	-	106	85-115
Selenium	ND	50.9	0.15	0.50	50	-	102	85-115
Silver	ND	50.6	0.025	0.19	50	-	101	85-115
Zinc	ND	522	5.0	15	500	-	104	85-115
Surrogate Recovery								
Terbium	761	764			750	101	102	70-130

(Cont.)

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Quality Control Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C09
Date Prepared:	1/25/18	**BatchID:**	152257
Date Analyzed:	1/26/18	**Extraction Method:**	E200.8
Instrument:	ICP-MS2	**Analytical Method:**	E200.8
Matrix:	Water	**Unit:**	µg/L
Project:	Quarterly	**Sample ID:**	MB/LCS-152257 1801B29-009AMS/MSD

QC Summary Report for Metals

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Arsenic	53.6	54.8	50	1.9	103	106	75-125	2.36	20
Cadmium	51.4	52.2	50	ND	103	104	75-125	1.57	20
Chromium	53.4	53.7	50	1.2	104	105	75-125	0.504	20
Copper	147	157	50	88	119	139,F10	75-125	6.44	20
Iron	5860	5970	5000	940	98	101	75-125	1.81	20
Lead	74.4	75.0	50	26	98	99	75-125	0.856	20
Mercury	1.28	1.30	1.25	ND	101	103	75-125	1.40	20
Molybdenum	52.2	52.6	50	1.2	102	103	75-125	0.764	20
Nickel	53.4	54.5	50	3.7	99	102	75-125	2.04	20
Selenium	49.7	51.1	50	ND	99	102	75-125	2.90	20
Silver	48.6	48.9	50	ND	97	98	75-125	0.739	20
Zinc	564	572	500	69	99	101	75-125	1.44	20
Surrogate Recovery									
Terbium	799	788	750		107	105	70-130	1.40	20

Analyte	DLT Result	DLTRef Val	%D	%D Limit
Arsenic	1.51	1.9	20.5	-
Cadmium	ND<1.2	ND	-	-
Chromium	1.27	1.2	5.83	-
Copper	94.0	88	6.82	20
Iron	794	940	15.5	20
Lead	23.8	26	8.46	20
Mercury	0.117	ND	-	-
Molybdenum	1.52	1.2	26.7	-
Nickel	2.35	3.7	36.5	-
Selenium	ND<2.5	ND	-	-
Silver	ND<0.95	ND	-	-
Zinc	71.8	69	4.06	-

%D Control Limit applied to analytes with concentrations greater than 25 times the reporting limits.

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Quality Control Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C09
Date Prepared:	1/23/18	**BatchID:**	152106
Date Analyzed:	1/24/18	**Extraction Method:**	SM2540 C-1997
Instrument:	WetChem	**Analytical Method:**	SM2540 C-1997
Matrix:	Water	**Unit:**	mg/L
Project:	Quarterly		

QC Summary Report for Total Dissolved Solids

SampID	Sample Result	Sample DF	Dup / Serial Dilution Result	Dup / Serial Dilution DF	RPD	Acceptance Criteria (%)
1801B69-001E	224	1	227	1	1.33	<10

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Quality Control Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C09
Date Prepared:	1/24/18	**BatchID:**	152142
Date Analyzed:	1/24/18	**Extraction Method:**	SM2540 D-1997
Instrument:	WetChem	**Analytical Method:**	SM2540 D-1997
Matrix:	Water	**Unit:**	mg/L
Project:	Quarterly		

QC Summary Report for Total Suspended Solids

SampID	Sample Result	Sample DF	Dup / Serial Dilution Result	Dup / Serial Dilution DF	RPD	Acceptance Criteria (%)
1801B82-001A	2.50	1	2.40	1	4.08	<10

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(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1801C09 **ClientCode: GOA**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☑ J-flag
☐ Detection Summary ☐ Dry-Weight

Report to:
David Frandsen
NRG Energy, LLC
3201 Wilbur Avenue
Antioch, CA 94509
(925) 427-3479 FAX: (925) 779-6679

Email: David.Frandsen@nrg.com; Kathy.crist@nrg
cc/3rd Party: joe.moura@nrg.com; james.robinson@nrg.
PO: 4501679786
Project: Quarterly

Bill to:
Accounts Payable
NRG
112 Telly Street
New Roads, LA 70760
invoices@nrg.com

Requested TATs: 5 days; 7 days;

Date Received: **01/23/2018**
Date Logged: **01/23/2018**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1801C09-001	FAC Combined Wastewater	Water	1/23/2018 14:10	☐	B	A	E	C	D							

Test Legend:

1	BOD_W	2	COD_W	3	METALSMS_TTLC_W	4	TDS_W
5	TSS_W	6		7		8	
9		10		11		12	

Prepared by: Alexandra Iniguez

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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WORK ORDER SUMMARY

Client Name: NRG ENERGY, LLC **Project:** Quarterly **Work Order:** 1801C09
Client Contact: David Frandsen **QC Level:** LEVEL 2
Contact's Email: David.Frandsen@nrg.com; Kathy.crist@nrg.com; **Comments:** **Date Logged:** 1/23/2018

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☑ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1801C09-001A	FAC Combined Wastewater	Water	SM5220D (COD)	1	aVOA w/ H2SO4	☐	1/23/2018 14:10	5 days	Present	☐	
1801C09-001B	FAC Combined Wastewater	Water	SM5210B (BOD)	1	1L HDPE, unprsv.	☐	1/23/2018 14:10	7 days	Present	☐	
1801C09-001C	FAC Combined Wastewater	Water	SM2540C (TDS)	1	500mL HDPE, unprsv.	☐	1/23/2018 14:10	5 days	Present	☐	
1801C09-001D	FAC Combined Wastewater	Water	SM2540D (TSS)	1	1L HDPE, unprsv.	☐	1/23/2018 14:10	5 days	Present	☐	
1801C09-001E	FAC Combined Wastewater	Water	E200.8 (Metals) <Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Mercury, Molybdenum, Nickel, Selenium, Silver, Zinc>	1	250mL HDPE w/ HNO3	☐	1/23/2018 14:10	5 days	Present	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

1801C09

Chain of Custody

Page 1 of 12

Marsh Landing Generating Station
3201 Wilbur Avenue, P.O. Box 1687, Antioch, CA 94509
Phone: (925) 779-6500 Fax: (925) 779-6509

SAMPLES SUBMITTED TO		SEND INVOICE TO		PROJECT	
Laboratory:	McCampbell Analytical, Inc.	Company:	NRG Energy, Inc	Plant:	Marsh Landing
ELAP Cert. No.	1644	Attention:	Sandra Herndon	Title:	DDSD
Address:	1534 Willow Pass Road, Pittsburg, CA 94565-1701	Address:	112 Tally St New Roads, LA 70760	Phase:	Quarterly
Phone/Fax:	925.252.9262/925.252.9269	P.O. No:	4501808523	Manager:	DavidFrandsen

Sample Number	Sample Date	Sample Collection Time	Regulatory Driver	Regulatory Frequency	Sample Medium	Sample Type	Sample Description	CONTAINER INFORMATION Number	Type	Volume (each,mL)	Preserv.	ANALYSIS REQUEST COD (SM5220D)	BOD (SM 5210B)	TDS (SM 2540B)	TSS (SM 2540D)
ML-18-018	23-Jan-18	1410	DDSD	Quarterly	Wastewater	C-24	FAC Combined Wastewater	2	Amber VOAs	43	H_2SO_4 (pH<2 4°C)	X			
ML-18-019	23-Jan-18		DDSD	Quarterly	Wastewater	C-24	FAC Combined Wastewater	1	HDPE Bottle	1,000	None (ZI-4S, 4°C)		X		
ML-18-020	23-Jan-18		DDSD	Quarterly	Wastewater	C-24	FAC Combined Wastewater	1	HDPE Bottle	500	None (4°C)			X	
ML-18-021	23-Jan-18		DDSD	Quarterly	Wastewater	C-24	FAC Combined Wastewater	1	Poly	1,000	None				X
											HOLDING TIME	28 days	48 hours	7 days	7 days

REPORTING		LABORATORY NOTES RE: SAMPLE RECEIPT/CONDITION	DIRECTIONS FOR LABORATORY
Original to:	David Frandsen		STANDARDTAT (5-day). Establish calibration standards so Minimum Level (ML) value is the lowest calibration standard the lowest quantifiable concentration or Reporting Limit (RL). Report "Detected, but Not Quantified" (DNQ) with estimated J-flagged concentrations below the RL and include method detection limits (MDLs) in report.
Title	Environmental Specialist/Engineer		
Address:	P.O. Box 1687 Antioch, CA 94509		*Include sample description with client sample ID.
Phone/Fax:	925.324-3533/6509		Invoice per quote 7224
E-mail:	david.frandsen@nrg.com		
E-mail CC:	james.robinson@nrg.com		
E-mail CC:	joemoura@nrg.com		
E-mail CC:	harry.bobis@nrg.com		
E-mail CC:	kathy.crist@nrg.com		

	PRINTED NAME	SIGNATURE	COMPANY	DATE	TIME
Sampled by	James Robinson	James E. Robinson	NRG-Marsh Landing Generating Station	23-Jan-18	~~1547~~ 1416
Relinquished by	James Robinson	James E. Robinson	NRG	23-Jan-18	~~1440~~ 1547
Received by	Alexandra L.		MAI	1/23/18	1547
Relinquished by					
Received by					
Relinquished by					
Received by					

1801C09

Chain of Custody

Page 77 of 82

Marsh Landing Generating Station
3201 Wilbur Avenue, P.O. Box 1687, Antioch, CA 94509
Phone: (925) 779-6500 Fax: (925) 779-6509

SAMPLES SUBMITTED TO		SEND INVOICE TO		PROJECT	
Laboratory:	McCampbell Analytical, Inc.	Company:	NRG Energy, Inc	Plant:	Marsh Landing
ELAP Cert. No.	1644	Attention:	Sandra Herndon	Title	DDSD
Address:	1534 Willow Pass Road, Pittsburg, CA 94565-1701	Address:	112 Tetty St New Roads, LA 70760	Phase	Quarterly
Phone/Fax:	925.252.9262/ 925.252.9269	P.O.No.:	4501808523	Manager:	David Frandsen

SAMPLE INFORMATION								CONTAINER INFORMATION				ANALYSIS REQUEST			
Sample Number	Sample Date	Sample Collection Time	Regulatory Driver	Regulatory Frequency	Sample Medium	Sample Type	Sample Description	Number	Type	Volume (each,mL)	Preserv.	Total Metals* (EPA Method 200.8)			
ML-18-022	23-Jan-18	1410	DDSD	Quarterly	Wastewater	C-24	FAC Combined Wastewater	1	HDPE Bottle	250	HNO3 (pH<2)	X			
											HOLDING TIME:	28 days			

REPORTING		LABORATORY NOTES RE: SAMPLE RECEIPT/CONDITION	DIRECTIONS FOR LABORATORY
Original to:	David Frandsen		**STANDARD TAT (5-day).** Establish calibration standards so Minimum Level (ML) value is the lowest calibration standard, the lowest quantifiable concentration or Reporting Limit (RL). Report "Detected, but Not Quantified" (DNQ) with estimated J-flagged concentrations below the RL and include method detection limits (MDLs) in report.
Title	Environmental Specialist/Engineer		1. Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Mercury, Nickel, Molybdenum, Selenium (reaction mode), Silver, Zinc
Address:	P.O. Box 1687 Antioch, CA 94509		
Phone/Fax:	925.324-3533/6509		***Include sample description with client sample ID.**
E-mail:	david.frandsen@nrg.com		Invoice per quote 7224
E-mailCC:	james.robinson@nrg.com		
E-mailCC:	Harry.bobis@nrg.com		
E-mailCC:	joe.moura@nrg.com		
E-mailCC:	kathy.crist@nrg.com		

	PRINTED NAME	SIGNATURE	COMPANY	DATE	TIME
Sampled by:	James Robinson	James E. Robinson	NRG-Marsh Landing Generating Station	23-Jan-18	~~1547~~ 1410
Relinquished by:	James Robinson	James E. Robinson	NRG	23-Jan-18	1547
Received by:	Alexandra I.		MAI	1/23/18	1547
Relinquished by:					
Received by:					
Relinquished by:					
Received by:					

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name:	**NRG Energy, LLC**	Date and Time Received:	**1/23/2018 15:47**
Project:	**Quarterly**	Date Logged:	**1/23/2018**
		Received by:	Alexandra Iniguez
WorkOrder №:	**1801C09** Matrix: Water	Logged by:	Alexandra Iniguez
Carrier:	Client Drop-In		

Chain of Custody (COC) Information

Chain of custody present?	Yes	☑	No	☐	
Chain of custody signed when relinquished and received?	Yes	☑	No	☐	
Chain of custody agrees with sample labels?	Yes	☑	No	☐	
Sample IDs noted by Client on COC?	Yes	☑	No	☐	
Date and Time of collection noted by Client on COC?	Yes	☑	No	☐	
Sampler's name noted on COC?	Yes	☑	No	☐	
COC agrees with Quote?	Yes	☐	No	☐	NA ☑

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes	☑	No	☐	NA ☐
Shipping container/cooler in good condition?	Yes	☑	No	☐	
Samples in proper containers/bottles?	Yes	☑	No	☐	
Sample containers intact?	Yes	☑	No	☐	
Sufficient sample volume for indicated test?	Yes	☑	No	☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes	☑	No	☐	NA ☐
Sample/Temp Blank temperature	Temp: 5.6°C				NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes	☑	No	☐	NA ☐
Sample labels checked for correct preservation?	Yes	☑	No	☐	
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes	☑	No	☐	NA ☐
Samples Received on Ice?	Yes	☑	No	☐	
	(Ice Type: WET ICE)				

UCMR Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522?	Yes	☐	No	☐	NA ☑
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539?	Yes	☐	No	☐	NA ☑

Comments:

McCampbell Analytical, Inc.
"When Quality Counts"

Analytical Report

WorkOrder: 1801C11

Report Created for: NRG Energy, LLC

3201 Wilbur Avenue
Antioch, CA 94509

Project Contact: David Frandsen
Project P.O.: 4501808523
Project: Semi-Annual (DAY 1)

Project Received: 01/23/2018

Analytical Report reviewed & approved for release on 01/30/2018 by:

Christine Askari
Project Manager

McCampbell Analytical, Inc.
"When Quality Counts"

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: NRG Energy, LLC
Project: Semi-Annual (DAY 1)
WorkOrder: 1801C11

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

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Analytical Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C11
Date Received:	1/23/18 15:47	**Extraction Method:**	E1664A_SG
Date Prepared:	1/29/18	**Analytical Method:**	E1664A
Project:	Semi-Annual (DAY 1)	**Unit:**	mg/L

Hexane Extractable Material (HEM; Oil & Grease) with Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	**1801C11-001B**	**Water**	**01/23/2018 14:10**	**O&G**	**152407**

Analytes	Result	MDL	RL	DF	Date Analyzed
SGT-HEM	ND	1.2	5.4	1	01/30/2018 12:00

Analyst(s): HN

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C11
Date Received:	1/23/18 15:47	**Extraction Method:**	E1664A
Date Prepared:	1/26/18	**Analytical Method:**	E1664A
Project:	Semi-Annual (DAY 1)	**Unit:**	mg/L

Hexane Extractable Material (HEM; Oil & Grease) without Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	**1801C11-001A**	**Water**	**01/23/2018 14:10**	**O&G**	**152198**

Analytes	Result	MDL	RL	DF	Date Analyzed
HEM	ND	1.2	5.6	1	01/29/2018 14:25

Analyst(s): HN

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C11
Date Prepared:	1/30/18	**BatchID:**	152407
Date Analyzed:	1/30/18	**Extraction Method:**	E1664A_SG
Instrument:	O&G	**Analytical Method:**	E1664A
Matrix:	Water	**Unit:**	mg/L
Project:	Semi-Annual (DAY 1)	**Sample ID:**	MB/LCS/LCSD-152407

QC Summary Report for E1664A

Analyte	MB Result	MDL	RL			
SGT-HEM	ND	1.1	5.0	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
SGT-HEM	9.44	9.69	10.42	91	93	64-132	2.61	30

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Quality Control Report

Client:	NRG Energy, LLC	**WorkOrder:**	1801C11
Date Prepared:	1/25/18	**BatchID:**	152198
Date Analyzed:	1/25/18	**Extraction Method:**	E1664A
Instrument:	O&G	**Analytical Method:**	E1664A
Matrix:	Water	**Unit:**	mg/L
Project:	Semi-Annual (DAY 1)	**Sample ID:**	MB/LCS/LCSD-152198

QC Summary Report for E1664A

Analyte	MB Result	MDL	RL			
HEM	ND	1.1	5.0	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
HEM	19.5	18.7	20.83	94	90	78-114	4.22	30

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1801C11 **ClientCode: GOA**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☑ J-flag
☐ Detection Summary ☐ Dry-Weight

Report to:
David Frandsen
NRG Energy, LLC
3201 Wilbur Avenue
Antioch, CA 94509
(925) 427-3479 FAX: (925) 779-6679

Email: David.Frandsen@nrg.com
cc/3rd Party: joe.moura@nrg.com; james.robinson@nrg.
PO: 4501808523
Project: Semi-Annual (DAY 1)

Bill to:
Accounts Payable
NRG
112 Telly Street
New Roads, LA 70760
invoices@nrg.com

Requested TAT: **5 days;**

Date Received: **01/23/2018**
Date Logged: **01/23/2018**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below) 1	2	3	4	5	6	7	8	9	10	11	12
1801C11-001	FAC Combined Wastewater	Water	1/23/2018 14:10	☐	B	A										

Test Legend:

1	1664A_SG_W	2	1664A_W	3		4	
5		6		7		8	
9		10		11		12	

Prepared by: Alexandra Iniguez

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name: NRG ENERGY, LLC
Client Contact: David Frandsen
Contact's Email: David.Frandsen@nrg.com

Project: Semi-Annual (DAY 1)
Comments:

Work Order: 1801C11
QC Level: LEVEL 2
Date Logged: 1/23/2018

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☑ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1801C11-001A	FAC Combined Wastewater	Water	E1664A (HEM; Oil & Grease w/o S.G. Clean-Up)	1	1LA w/ HCl	☐	1/23/2018 14:10	5 days	Present	☐	
1801C11-001B	FAC Combined Wastewater	Water	E1664A (SGT- HEM; Non-polar Material)	1	1LA w/ HCl	☐	1/23/2018 14:10	5 days	Present	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

1801C11

Chain of Custody

Page 1 of 12

Marsh Landing Generating Station
3201 Wilbur Avenue, P.O. Box 1687, Antioch, CA 94509
Phone: (925) 779-6500 Fax: (925) 779-6509

SAMPLES SUBMITTED TO		SEND INVOICE TO		PROJECT	
Laboratory:	McCampbell Analytical, Inc.	Company:	NRG Energy, Inc	Plant:	Marsh Landing
Attention:		Attention:	Sandra Herndon	Title	DDSD
Address:	1534 Willow Pass Road, Pittsburg, CA 94565-1701	Address:	112 Tally St. New Roads, LA 70760	Phase:	Semi-Annual (DAY 1)
Phone/Fax:	925.252.9262/925.252.9269	P.O. No:	4501808523	Manager:	David Frandsen

SAMPLE INFORMATION								CONTAINER INFORMATION				ANALYSIS REQUEST			
Sample Number	Sample Date	Sample Collection Time	Regulatory Driver	Regulatory Frequency	Sample Medium	Sample Type	Sample Description	Number	Type	Volume (each, L)	Preserv.	Oil and Grease [1] (animal/vegetable) (EPA Method 1664A)	Oil and Grease [2] (Petroleum/Mineral) (EPA Method 1664A)		
ML-18-023	23-Jan-18	1410	DDSD	Semi-Annual	Wastewater	Grab	FAC Combined Wastewater	1	Amber Glass Jar	1	Hydrochloric Acid (pH<2, 4°C)	X			
ML-18-024	23-Jan-18	1	DDSD	Semi-Annual	Wastewater	Grab	FAC Combined Wastewater	1	Amber Glass Jar	1	Hydrochloric Acid (pH<2, 4°C)		X		
											HOLDING TIME	28 days	28 days		

REPORTING		LABORATORY NOTES RE: SAMPLE RECEIPT/CONDITION	DIRECTIONS FOR LABORATORY
Original to:	David Frandsen		**STANDARD TAT (5-day).** Establish calibration standards so Minimum Level (ML) value is the lowest calibration standard, the lowest quantifiable concentration or Reporting Limit (RL). Report "Detected, but Not Quantified" (DNQ) with estimated J-flagged concentrations below the RL and include method detection limits (MDLs) in report.
Title:	Environmental Specialist/Engineer		1. Animal/Vegetable O/G
Address:	P.O. Box 1687 Antioch, CA 94509		2. Petroleum/Mineral O/G
Phone/Fax:	925.324-3533/6509		***Include sample description with client sample ID.**
E-mail:	david.frandsen@nrg.com		Invoice per quote 7224
E-mail CC:	james.robinson@nrg.com		
E-mail CC:	joe.mours@nrg.com		
E-mail CC:	kathy.crist@nrg.com		

	PRINTED NAME	SIGNATURE	COMPANY	DATE	TIME
Sampled by:	James Robinson	James E. Robinson	NRG-Marsh Landing Generating Station	23-Jan-18 (JER)	~~1547~~ 1410
Relinquished by:	James Robinson	James E. Robinson	NRG	23-Jan-18	1547
Received by:	Alexandra L.		MAI	1/23/18	1547
Relinquished by:					
Received by:					
Relinquished by:					
Received by:					

McCampbell Analytical, Inc.
"When Quality Counts"

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name:	**NRG Energy, LLC**	Date and Time Received	**1/23/2018 15:47**
Project:	**Semi-Annual (DAY 1)**	Date Logged:	**1/23/2018**
		Received by:	Alexandra Iniguez
WorkOrder №:	**1801C11** Matrix: Water	Logged by:	Alexandra Iniguez
Carrier:	Client Drop-In		

Chain of Custody (COC) Information

Chain of custody present?	Yes	☑	No	☐		
Chain of custody signed when relinquished and received?	Yes	☑	No	☐		
Chain of custody agrees with sample labels?	Yes	☑	No	☐		
Sample IDs noted by Client on COC?	Yes	☑	No	☐		
Date and Time of collection noted by Client on COC?	Yes	☑	No	☐		
Sampler's name noted on COC?	Yes	☑	No	☐		
COC agrees with Quote?	Yes	☐	No	☐	NA	☑

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes	☑	No	☐	NA	☐
Shipping container/cooler in good condition?	Yes	☑	No	☐		
Samples in proper containers/bottles?	Yes	☑	No	☐		
Sample containers intact?	Yes	☑	No	☐		
Sufficient sample volume for indicated test?	Yes	☑	No	☐		

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes	☑	No	☐	NA	☐
Sample/Temp Blank temperature	Temp: 5.6°C				NA	☐
Water - VOA vials have zero headspace / no bubbles?	Yes	☐	No	☐	NA	☑
Sample labels checked for correct preservation?	Yes	☑	No	☐		
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes	☐	No	☐	NA	☑
Samples Received on Ice?	Yes	☑	No	☐		
(Ice Type: WET ICE)						

UCMR Samples:

Total Chlorine tested and acceptable upon receipt for EPA 522?	Yes	☐	No	☐	NA	☑
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539?	Yes	☐	No	☐	NA	☑

Comments: