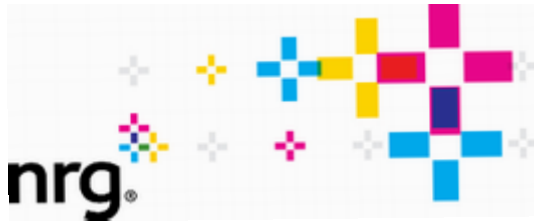


DOCKETED	
Docket Number:	08-AFC-03C
Project Title:	Marsh Landing Generating Station Compliance
TN #:	255387-1
Document Title:	Marsh Landing 2023 CEC Compliance Annual Report Part 1 of 4
Description:	Annual Compliance Operations Report
Filer:	David Frandsen
Organization:	NRG
Submitter Role:	Applicant
Submission Date:	3/29/2024 4:39:32 PM
Docketed Date:	3/29/2024



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March 29, 2024

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

Subject: Annual Compliance Report – 2023
(COMPLIANCE-7)
Docket No. 08-AFC-03

Mr. Winstead,

Marsh Landing Generating Station achieved Commercial Operation status on May 1, 2013. The legal name of the plant is Marsh Landing LLC. The plant is 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, 2023. 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.
(925-324-3533 or David.Frandsen@nrg.com)

Sincerely,

David Frandsen

David Frandsen
MLGS Compliance Manager

Enclosures:
1 Electronic copy on CD of ACR 2023

Annual Compliance Report

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Marsh Landing Generating Station
Annual Compliance Report

1.0 Current Compliance Matrix

Color Code Key:

Pre-Const	Construction	Commit.	Operations	To CEC or Agency	Approved by CEC
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Sort Code	Cond. #	Description of Project Owner's Responsibilities	Verification/Action/Submital 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	CPM	CBO	Other	Responsible Party
PC-1	AQ-SC1	Designate and retain an on-site AQCOMM 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 AQCOMM may delegate responsibilities to one or more AQCOMM delegates.	Submit to the CPM for approval the name, resume, qualifications, and contact information for the on-site AQCOMM and all AQCOMM delegates. The AQCOMM 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				Stephen L. Erickson
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 any 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				Stephen L. Erickson
CONS	AQ-SC3	The AQCOMM 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 AQCOMM 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 Business day of each month	Currently No noted issues with any Monthly report			AQCOMM	Stephen L. Erickson
CONS	AQ-SC4	The AQCOMM or an AQCOMM 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 AQCOMM or delegate shall then implement the following procedures for additional mitigation measures in the event that such visible dust plumes are observed.	The AQCOMM shall include a section detailing how additional mitigation measures will be accomplished within the specified time limits.	Monthly	Include in MCR	GenOn					Monthly 10th Business day of each month	Currently No noted issues with any Monthly report				Stephen L. Erickson
CONS	AQ-SC5	The AQCOMM 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 AQCOMM 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 Business day of each month	Currently No noted issues with any Monthly report				Stephen L. Erickson
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 Business day of each month	Currently No noted issues with any Monthly report				Tom Bertolini
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				Peter Landreth
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	NRG										Scott Seipel
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 Business day of each month	Currently No noted issues with any Monthly report				Doug King
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										Tom Bertolini
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							CPM		AQMD	Tom Bertolini
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									AQMD	Doug King Randy Dixon

Pre-Const	Construction	Commis.	Operations	To CEC or Agency	Approved by CEC
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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	CPM	CBO	Other	Responsible Party
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								AQMD	Doug King
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. (Basic: 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								AQMD	Doug King
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. (Basic: 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.							Doug King
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 BAAQMD Per						AQMD	Doug King
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	NRG			Reports submitted quarterly.						AQMD	Scott Seipel
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	NRG			Reports submitted quarterly.						AQMD	Scott Seipel
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. (Basic: 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								AQMD	Doug King
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. POC 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	NRG			Reports submitted quarterly.							Scott Seipel

Pre-Const	Construction	Commits	Operations	To CEC or Agency	Approved by CEC
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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	NRG			Reports submitted quarterly.							Scott Seipel
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	NRG			Reports submitted quarterly.							Scott Seipel
OPS	AQ-14	The owner/operator shall 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 <u>but excluding heat input rate during readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations.</u>	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	NRG			Reports submitted quarterly.						Amended February 2019	Scott Seipel
OPS	AQ-15	The owner operator shall 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, testing, <u>readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations.</u>)	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	NRG			Reports submitted quarterly.						Amended February 2019	Scott Seipel
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	NRG			Reports submitted quarterly.							Scott Seipel
OPS	AQ-17	Normal Operations Emissions Limits "The owner/operator shall ensure that the Gas Turbines (S-1, S-2, S-3, S-4) comply with requirements (a) through (i). Requirements (a) through (i) do not apply during gas turbine start-ups, combustor tuning operations, shutdowns, <u>readiness testing for black start capability, commissioning activities for black start capability, or black start emergency operations.</u> "	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	NRG			Reports submitted quarterly.						Amended February 2019	Scott Seipel
OPS	AQ-18	Summary: Startup/Shutdown Limits: "The owner/operator shall 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 shutdown does not exceed the limits established below. Startups shall exceed 30 min. Shutdowns shall not exceed 15 minutes. <u>These requirements do not apply during readiness testing for black start capability, commissioning activities for black start capability, or black start emergency operations.</u>	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	NRG			Reports submitted quarterly.						Amended May 21, 2021	Scott Seipel
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. 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	NRG			Reporting on as needed basis.						AQMD	Scott Seipel
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, <u>but excluding emissions generated during readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations,</u> 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	NRG			Reports submitted quarterly.						Amended February 2019	Scott Seipel
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, <u>but excluding emissions generated during readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations,</u> 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	NRG			Reports submitted quarterly.						Amended February 2019	Scott Seipel
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, <u>but excluding emissions generated during readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations,</u> 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	NRG			Reports submitted quarterly.						Amended February 2019	Scott Seipel
OPS	AQ-23a	Do not allow the maximum projected annual toxic air contaminant <u>emissions</u> (per AQ-26) from the Gas Turbines combined to exceed the following limits: formaldehyde <u>8,459 7,746</u> pounds per year, benzene <u>205 202</u> pounds per year, Specified polycyclic aromatic hydrocarbons (PAHs) <u>2.00 1.48</u> 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.	Within 60 days of initial source testing. (See condition AQ-30b)	4/1/11	NRG			Initial Source Test submitted 6/18/13. Annual testing required.						Amended February 2019	Scott Seipel

Pre-Const	Construction	Commit.	Operations	To CEC or Agency	Approved by CEC
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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 within 60days of test	As required	NRG										Scott Seipel
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), <u>AQ-41, AQ-42, AQ-43, AQ-44(a), AQ-44(b), AQ-45(a), and AQ-45(b)</u> , by using properly operated and maintained continuous monitors (during all hours of operation including gas turbine start-up, combustor tuning, and shut down periods, <u>readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations</u>). The owner/operator shall monitor for all of the following <u>a through m. Black Start Specific: (f)For each calendar day, the average hourly Heat Input Rates, corrected NOx emission concentration, NOx mass emission rate (as NO2), corrected CO emission concentration, and CO mass emission rate during readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations for S-3 and S-4. (m) On a monthly basis, the cumulative total NOx mass emissions (as NO2) and cumulative total CO mass emissions during readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations, for the previous consecutive twelve-month period for sources S-3 and S-4 combined.</u> <u>Note: The required data in (f) thru (k) shall exclude any data during readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations.</u>	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	NRG									Scott Seipel	
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), <u>41, 42, 43, 44(c), 44(d), 44(e), 45(c), 45(d), and 45(e)</u> , 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: <u>The emissions calculated in (a) and (b) shall exclude any data during readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations.</u> (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	NRG								<u>Amended February 2019</u>	Scott Seipel	
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	NRG										Scott Seipel
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 initial source testing	4/1/11	NRG	6/25/13 CEC Submittal 164 Source Test Report								<u>Amended May 21, 2021</u>	Doug King
OPS	AQ-27b	<u>A source test shall be conducted at least once every 1,752 hours of turbine operation or once every 36 consecutive months, whichever comes first. Additional source testing may be required at the discretion of the District to address or ascertain compliance with the requirements of this permit.</u> 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.	<u>Testing for steady-state emissions shall be conducted upon initial operation and at least once every 12 months.</u>	within 60 days of test every 12 months	As required	NRG									<u>Amended May 21, 2021</u>	Scott Seipel

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OPS	AQ-28a	<u>The owner/operator shall perform a relative accuracy test audit (RATA) on the CEMS, on at least an annual basis or as allowed by the regulations and approved by the District, in accordance with the applicable requirements of 40 Part 75 Appendix A and 40 CFR Part 60 Appendix B Performance Specifications.</u>	Submit the results and field data collected during source tests to the District and CPM within 60 days of testing	Annually	Include in ACR	NRG									<u>Updated February, 2019</u>	Scott Seipel
COMM & OPS	AQ-28b	<u>A referenced method source test shall be conducted at least once every 1,752 hours of turbine operation or once every 36 consecutive months, whichever comes first. Additional source testing may be required at the discretion of the District to address or ascertain compliance with the requirements of this permit. The owner shall 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(e), 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.</u>	The owner/operator shall submit the source test results to the District and the CEC CPM within 60 days of conducting the tests.	<u>At least once every 1,752 hours of turbine operation or once every 36 consecutive months, whichever comes first.</u>	4/1/11	NRG									<u>Updated February, 2019</u>	Scott Seipel
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	NRG	2/25/13 CEC Submittal 151 Update of planned Source Testing dates.								AQMD	Scott Seipel
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 <u>≤ 2.9 pounds/year and 0.06 pounds/hour, Formaldehyde ≤14 pounds/year and 0.12 pounds/hour, Specified PAHs ≤ 0.0033 pounds/year</u>	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								<u>Amended February, 2019</u>	Doug King
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	within 60 days of test every 24 months thereafter	As required	NRG	6/25/13 Submittal 164 Source Test Report Submitted									Scott Seipel
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/m ³) of the sulfuric acid mist emissions pursuant to Regulation 2, Rule 2, Sections <u>305 and 306</u> . (Basic: Regulation 2, Rule 2, Section <u>227</u>)	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-SC5) shall include a determination of the impact if triggered by this condition.	As Required & Quarterly	30 days after end of quarter	NRG		Reports submitted quarterly.							<u>Amended May 21, 2021</u>	Scott Seipel
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) SO ₂ , SO ₃ , and H ₂ SO ₄ . Submit the source test results to the District and the CEC CPM within 60 days of conducting the tests. (Basic: Regulation 2, Rule 2, Section <u>306227</u> ; and Regulation 2, Rule 2, Section <u>419409</u>)	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								AQMD	Doug King
OPS	AQ-32b	<u>A source test shall be conducted at least once every 1,752 hours of turbine operation or once every 36 consecutive months, whichever comes first. Additional source testing may be required at the discretion of the District to address or ascertain compliance with the requirements of this permit.</u>	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 test	As required	NRG	6/25/13 Submittal 164 Source Test Report Submitted								<u>Amended May 21, 2021</u>	Scott Seipel

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OPS	AQ-33	Do not allow sulfuric acid emissions (SAM) from stacks combined to exceed seven tons in any consecutive 12 month period. (Basic Regulation 2, Rule 2, Section 227, and 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	NRG			Reports submitted quarterly.							Scott Seipel
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							Randy Dixon
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	NRG										Scott Seipel
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	NRG										Joe Moura
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	NRG			Reports submitted quarterly.							Scott Seipel
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							Randy Dixon
CONS	AQ-39	Contact the BAAQMD Technical Services Division regarding requirements for the continuous emission monitors, sampling ports, platforms, and source tests as 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 068		Approval received from BAAQMD by letter from Ken Kumaniec, Air Quality Engineering Manager Dated 4/21/2011		10/11/2012 Submittal of BAAQMD Letter only - No CEC Approval required.			N/A	AQMD	Tori Logan
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	NRG			Kiewit to provide per email from Jason Lockwood 10.19.12							Scott Seipel
COMM	AQ-41	Commissioning Activities for Black Start Capability: The owner/operator shall perform commissioning activities for black start capability at S-3 and S-4 for no more than 64 hours combined. Upon completion of these activities, the owner/operator shall provide written notice to the District Engineering and Enforcement Divisions.	The project owner shall submit to the CPM the commissioning report to demonstrate the compliance of this condition within 30 days from the completion of black start capability commissioning.	Black Start Commissioning	30 days after end of commissioning	NRG			Add with Black Start Amendment February 2019						Amended February 2019	
COMM	AQ-42	Emission Limits for Commissioning Activities for Black Start Capability: The owner/operator shall not operate Gas Turbines S-3 and S-4 in a manner such that the combined pollutant emissions from these sources exceeds the following limits when performing commissioning activities for black start capability: NOx (as NO2) 3,311 pounds; CO 103,486 pounds; POC (as CH4) 8,089 pounds; PM10/PM2.5 123 pounds; SO2 84 pounds.	The project owner shall submit to the CPM the commissioning report to demonstrate the compliance of this condition within 30 days from the completion of black start capability commissioning.	Black Start Commissioning	30 days after end of commissioning				Add with Black Start Amendment February 2019						Amended February 2019	
COMM	AQ-43	AQ-43 When performing any commissioning activities for black start capability at S-3 and S-4, the owner/operator of the MLGS shall demonstrate compliance with conditions AQ-41 and AQ-42 through the use of properly operated and maintained continuous emission monitors, and data recorders for the following parameters: -firing hours -fuel flow rates -stack gas nitrogen oxide emission concentrations -stack gas carbon monoxide emission concentrations -stack gas oxygen concentrations. 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. 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.	The project owner shall submit to the CPM a commissioning report to demonstrate compliance with this condition within 30 days after the completion of black start capability commissioning.	Black Start Commissioning	30 days after end of commissioning				Add with Black Start Amendment February 2019						Amended February 2019	
OPS	AQ-44	Daily Emission Limits for Black Start Operations: The owner/operator shall not allow total combined emissions from readiness testing for black start capability and black start emergency operations at Gas Turbines S-3 and S-4 to exceed the following limits during any consecutive 24-clock hour period: (a) NOx (as NO2) 8,048 pounds per day; (b) CO 100,673 pounds per day; (c) POC (as CH4) 7,422 pounds per day; (d) PM10/PM2.5 255 pounds per day; (e) SO2 174 pounds per day.	For days when Black Start Operations or readiness testing occurs, a summary of operation events, operating data and associated monitoring records shall be included in the subsequent quarterly operation report (AQ-SC8).	Quarterly	30 days after end of quarter				Add with Black Start Amendment February 2019						Amended February 2019	

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OPS	AQ-45	Annual Emission Limits for Readiness Testing for Black Start Capability: The owner/operator shall not allow emissions from readiness testing for black start capability at Gas Turbines S-3 and S-4 to exceed the following limits during any consecutive twelve-month period: (a) NOx (as NO2) 414 pounds per year; (b) CO 12,936 pounds per year; (c) POC (as CH4) 1,011 pounds per year; (d) PM10/PM2.5 15 pounds per year; (e) SO2 10 pounds per year.	For days when readiness testing occurs, a summary of operation events, operating data and associated monitoring records shall be included in the subsequent quarterly operation report (AQ-SC8).	Black Start Operation	30 days after end of quarter				Add with Black Start Amendment February 2019						Amended February 2019	
OPS	AQ-46	AQ-46 Annual Emission Limits for Black Start Operations. The owner/operator shall not allow total combined emissions from readiness testing for black start capability and black start emergency operations at Gas Turbines S-3 and S-4 to exceed the following limits during any consecutive twelve-month period: (a) NOx (as NO2) 16,283 pounds per year; (b) CO 212,725 pounds per year; (c) POC (as CH4) 15,750 pounds per year; (d) PM10/PM2.5 518 pound per year; (e) SO2 354 pounds per year.	For days when readiness testing occurs, a summary of operation events, operating data and associated monitoring records shall be included in the subsequent quarterly operation report (AQ-SC8).	Black Start Operation	As required	NRG			Add with Black Start Amendment February 2019						Amended February 2019	Scott Seipel
COMM / OPS	AQ-47	In the event that total emissions from commissioning activities, readiness testing for black start capability, and black start emergency operations exceed (a) 16,283 pounds of NOx and/or (b) 15,750 pounds of POC during any 12-month period that includes commissioning activities, the owner/operator shall submit additional offset credits for the excess emissions according to the procedures set forth in District Regulation 2-2-302.1 through 302.4.	If facility operations require additional offset credits to be surrendered to the District, an identification of the specific offset credits surrendered, a summary of operation events, operating data and associated monitoring records shall be included in the subsequent quarterly operation report (AQ-SC8).	Black Start Commissioning	As Required	NRG			Add with Black Start Amendment February 2019						Amended February 2019	Scott Seipel
OPS	AQ-48	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	NRG			AQ-41 added with petition to amend approved 11/17/2014. Revised to AQ-48 with February 2019 Black Start Amendment						Amended February 2019	Scott Seipel
OPS	AQ-49	The project owner shall operate each emergency standby engine only for the following purposes: to mitigate 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	NRG			AQ-42 added with petition to amend approved 11/17/2014. Revised to AQ-49 with February 2019 Black Start Amendment						Amended February 2019	Scott Seipel
OPS	AQ-50	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	NRG			AQ-43 added with petition to amend approved 11/17/2014. Revised to AQ-50 with February 2019 Black Start Amendment						Amended February 2019	Scott Seipel
OPS	AQ-51	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 Title 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 emission testing. 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	NRG			AQ-44 added with petition to amend approved 11/17/2014. Revised to AQ-51 with February 2019 Black Start Amendment						Amended February 2019	Scott Seipel
OPS	AQ-52	If the emergency standby engine is located on school grounds or within 500 feet of any school ground, the following requirements shall apply. M/GS 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	NRG			AQ-45 added with petition to amend approved 11/17/2014. Revised to AQ-52 with February 2019 Black Start Amendment						Amended February 2019	Scott Seipel
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	Stephen L. Erickson
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 Business day of each month	Currently No noted issues with any Monthly report				Stephen L. Erickson
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										Stephen L. Erickson

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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				Stephen L. Erickson
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 Business day of each month	Currently No noted issues with any Monthly report				Raja Ponniah
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				Stephen L. Erickson
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	NRG						Verified Monthly in MCR's in sections 2.05				Dan Leach
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				Stephen L. Erickson
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				Stephen L. Erickson
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				Stephen L. Erickson
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 Business day of each month	Currently No noted issues with any Monthly report				Dawn Owens
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					Stephen L. Erickson
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 Business day of each month	Currently No noted issues with any Monthly report				Stephen L. Erickson
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					Stephen L. Erickson
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				Stephen L. Erickson
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. Isora on 9/18/12				Dan Leach

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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. Remy-Obad on 7/15/13.				Dan Leach
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.				Dan Leach
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.				Dan Leach
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.				Dan Leach
OPS	BIO-8 2017	Provide an annual Payment to Friends of San Pablo Bay. The First Annual Payment shall be at least equal to \$3,115 + \$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										Dan Leach
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										Dan Leach
OPS	BIO-8 2019	Provide an annual Payment to Friends of San Pablo Bay. The Annual Payment shall be at least equal to \$3,311.00 (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										Dan Leach
OPS	BIO-8 2020	Provide an annual Payment to Friends of San Pablo Bay. The Annual Payment shall be at least equal to \$3,400.00 (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	5/31/20	NRG										Dan Leach
OPS	BIO-8 2021	Provide an annual Payment to Friends of San Pablo Bay. The Annual Payment shall be at least equal to \$3,527.007 (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	5/31/21	NRG										Dan Leach
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				Kyle Stuckenholz
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				Kyle Stuckenholz
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				Kyle Stuckenholz
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				Kyle Stuckenholz
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				Reid Strain

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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										Gene Amrhein
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 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 relevant NCR's are closed(Verified on NCR log) and submitted. No approvals are required from CEC				Gene Amrhein
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					Kyle Stuckenholz
PC-1	CUL-3a	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 on 10/5/2010 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				Stephen L. Erickson
CONS	CUL-3b	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 on 10/5/2010 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				Stephen L. Erickson
PC-1	CUL-3c	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 9/13/2011 Submitted Alexandra Greenwald 11/14/2011, Submitted Joseph Belk 11/30/2011 Approval 10/12/2011		10/7/2010	CEC Acceptance resumes on 10/5/2010 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				Stephen L. Erickson
CONS	CUL-3d	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 4.0/verified MCR No.5 2/11/2011				Stephen L. Erickson
PC-1	CUL-3e	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 4.0/verified MCR No.5 2/11/2011				Stephen L. Erickson
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 info 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				Stephen L. Erickson

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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				Raja Ponniah
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				Stephen L. Erickson
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				Stephen L. Erickson
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					Stephen L. Erickson
CONS	CUL-4b	If cultural materials requiring curation were collected, provide to the CPM a copy of an agreement or 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					Stephen L. Erickson
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 Dependent	CULTURAL SPECIALIST										Stephen L. Erickson
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				Stephen L. Erickson
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				Stephen L. Erickson
CONS	CUL-5b	Provide 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 Business day of each month	Currently No noted issues with any Monthly report				Raja Ponniah
CONS	CUL-6a	Ensure that CRS, alternate CRS or CRMs monitor full time all ground disturbances at project site along the linear facilities routes, and laydown areas, roads, and other ancillary areas. And Ensure that the CRMs keep a daily log of any monitoring	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 teleconference and verified by email 9.14.12				Stephen L. Erickson
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 Business day of each month	Currently No noted issues with any Monthly report				Dawn Owens
CONS	CUL-6c	Notify CEC prior to changing or eliminating 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 teleconference and verified by email 9.14.12				Stephen L. Erickson
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 teleconference and verified by email 9.14.12				Stephen L. Erickson
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 teleconference and verified by email 9.14.12				Stephen L. Erickson
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				Stephen L. Erickson
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 precipitously, Submit 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 teleconference and verified by email 9.14.12				Stephen L. Erickson

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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 activities and submit the survey and recommendation to the CPM.	At least 30 days prior to start of construction of each increment of electrical construction	As required	CULTURAL SPECIALIST			Nothing required at this time			Verified in Monthly reports in section 2.12. Requirement complete with suspension Approval received per teleconference and verified by email 9.14.12				Stephen L. Erickson
CONS	ELEC-3	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.				Tharu Nadarajah
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										Mike Rinehart
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 (TN2010-1776) Additionally Verified on MCR No. 4	Approved			Sarah Copeland
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 Business day of each month	Currently No noted issues with any Monthly report				Sarah Copeland
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 Business day of each month	Currently No noted issues with any Monthly report				Chuck Hicklin
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	2010-1785	Approved (No Date Given)	11/19/10	12/3/10	2/4/2011. Verified on MCR No. 5 2/11/2011			2/4/2011	Gene Amrhein
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 addnl 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 Sheng Lu 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			2/16/2011	Jake Albers
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 Qualls to CEC for Jay Locatelli, Micah Ek, Jeffrey Brooks, Jason Burris, Ryan Doyel, and Laura Johnson. Also sent CBO approvals for John 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			2/24/2011	Dennis Chambers
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 Business day of each month	Currently No noted issues with any Monthly report				Gene Amrhein to communicate any CBO issues back to KC.
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				Raja Ponniah
PC-2	GEO-1	Specifically include in the Soils and Engineering 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				Raja Ponniah Randy Dixon

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OPS	RI0-8-2022	Provide an annual Payment to Friends of San Pablo Bay. The Annual Payment shall be at least equal to \$3,707.007 (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	5/31/22	NRG										Dan Leach
OPS	RI0-8-2023	Provide an annual Payment to Friends of San Pablo Bay. The Annual Payment shall be at least equal to \$4,095.007 (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	5/31/23	NRG										Dan Leach
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	NRG	6/25/13 Submittal 165 O&M HMBP to the CEC									David Frandsen
CONS	HAZ-2	Concurrently provide and updated Business Plan, and updated Spill Prevention Control, and Countermeasure Plan, and an updated Risk Management Plan to CCHSD-HMP) and the CPM for review. Reflect all changes in doc and provide copies to CCHSD-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 CCCFPD 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 7/13/2012 Updated construction SPCC and HMBP plans submitted to the CEC. 8/17/2012	9/17/12					CCHSD-HMP and CCCFPD	Diane Griffin
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									Tom Bertolini
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									Jake Albers Dave Hammond
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 receipt of aqueous ammonia on site	10/1/12	GenOn	8/3/2012 Submittal 113									Tom Bertolini
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 receipt of any hazardous material on site	9/1/13	GenOn	8/3/2012 Submittal 113									Tom Bertolini
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					Raja Ponniah
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 receipt 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					Kirk Emmons
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	NRG			Reports submitted annually.							Dan Leach
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				Jake Albers
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 Business day of each month	Currently No noted issues with any Monthly report				Raja Ponniah
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			Cal-OSHA	Jake Albers
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 Business day of each month	Currently No noted issues with any Monthly report				Raja Ponniah

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CONS	MICH-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 eng 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 refrigeration system	As required	KIEWIT					MCR	Approved in monthly installments included in Monthly reports under section 2.22				Jake Albers
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				Stephen L. Erickson
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 complaint.	Within 5 days of receiving a noise complaint	As required	K&G	2/4/2011 Submittal 034		Received noise complaint 1/31/2011. Submitted form to the CEC 2/4/2011							Raja Ponniah
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				Raja Ponniah
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									Jake Albers Jason Lockwood
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									Jake Albers Jason Lockwood
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									Doug King
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 construction 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 Disturbance	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 Approved 1/9/12. Submitted Admitt work hour request 4/27/2013. 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 teleconference and verified by email 9.14.12 Also verified MCR No.4 MCR 17 MCR No. 21				Raja Ponniah
PC-1	PAL-3a	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 Cornelius 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 teleconference and verified by email 9.14.12				Stephen L. Erickson
PC-1	PAL-3b	Provide a letter with resumes naming anticipated monitors stating they meet minimum 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 teleconference and verified by email 9.14.12				Stephen L. Erickson
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 Submittal 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 teleconference and verified by email 9.14.12				Stephen L. Erickson
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	Ammedend 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 teleconference and verified by email 9.14.12				Stephen L. Erickson

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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 10/26/2010 Submittal 023 10/26/2010 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 logy 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 Verification per acceptances of section 4.0 of MCR No. 3 with suspension Approval received per teleconference and verified by email 9.14.12				Stephen L. Erickson
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 Business day of each month	Currently No noted issues with any Monthly report				Dawn Owens
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 by PAL-07.	As required	As required	PRS						Verified as accepted per Email notice from CEC MS. C. Stora on 9/4/2012				Stephen L. Erickson
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					Stephen L. Erickson
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) Submitted additional payment 2/2/2012	2/4/2011	2/4/2011	2/9/2011 Verified MCR No.6 3/14/2011				Dawn Owens
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			RWQCB	Raja Ponniah
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				Raja Ponniah
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			Contra Costa County	Raja Ponniah
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			Contra Costa County	Raja Ponniah
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 Business day of each month	Currently No noted issues with any Monthly report				Raja Ponniah
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	11/8/2011 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			RWQCB	Raja Ponniah
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 and submit 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								RWQCB	Diane Griffin Raja Ponniah
CONS	Soil & Water-5a	Provide 2 copies of the executed Waste Water Discharge Agreement with DDSD for the long term discharge of all wastewater streams for the MLGS to DDSD wastewater treatment facilities. Shall specify Peak discharge rate of 118 gpm. Do not connect to City of Antioch's wastewater pipeline 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 from the MLGS	No later than 60 days prior to connection the DDSD wastewater pipeline	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				Dawn Owens

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OPS	Soil & Water-3b	During operation an monitoring reports provided to DDSD shall also be provided to the CPM.	Submit any wastewater 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	NRG			Reports submitted annually.							David Frandsen
OPS	Soil & Water-3c	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	NRG										David Frandsen
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 water 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 evidentiary only no approval required				Raja Ponniah
OPS	Soil & Water-5b	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	NRG			Reports submitted annually.							Dan Leach
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				Dawn Owens
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 payment to the city.	9/18/2012	Sent by Email to CEC PM C Stora 9/18	9/19/12 Email confirmation to Dawn				Dawn Owens
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	NRG			Paid annually in May.							Dan Leach
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 condition	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				Reid Strain
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 Business day of each month	Currently No noted issues with any Monthly report					Reid Strain
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				Dennis Chambers
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 impending changes		Monthly 10th Business day of each month	Currently No noted issues with any Monthly report				Sarah Copeland
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				Jake Albers, Dave Hammond
CONS	TLN-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					Luke Goss
CONS	TLN-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 requirement.	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					Luke Goss
CONS	TLN-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									Doug King
CONS	TLN-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					Randy Dixon

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CONS	TSEN-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				Luke Goss
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 additional 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			Contra Costa County Public Works Department and City of Antioch Engineering Department	Raja Ponniah
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/videoeape 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			City of Antioch Engineering Department	Raja Ponniah
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								Contra Costa County Public Works Department and City of Antioch Engineering Department	Raja Ponniah
CONS	TSE-1	Provide the CPM and CBO with a schedule of transmission facility design submittals, a master specifications 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				Luke Goss
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 the CBO for review and approval, the names, qualifications, and registration numbers of all the responsible engineers assigned to the project. The project owner shall notify the CPM of the CBO's approvals of the engineers within five days of the approval. If the designated responsible engineer is subsequently reassigned or replaced, the project owner has five days in which to submit the name, qualifications, and registration number of the newly assigned engineer to the CBO for review and approval. The project owner shall notify the CPM of the CBO's approval of the new engineer within five days of the approval	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	Verbally approved (C.H.)	CBO Approved 2-16-11 CEC Approved 3/16/2011 Submitted Reid Strain for Design Engineer and Richard Jacobor 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		2/16/2011		Jake Albers
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				Luke Goss
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				Luke Goss
CONS	TSE-5a	Design, construct, and operate the proposed transmission facilities in 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 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				Luke Goss
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" 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 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				Luke Goss
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 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				Luke Goss
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 of construction of the transmission facilities	5/1/12	GenOn	10/1/13		See email from CEC C Stora							Ashis Sengupta
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 of construction of the transmission facilities	5/1/12	GenOn	10/1/13		See email from CEC C Stora							Ashis Sengupta

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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 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				Chuck Hicklin
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 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				Chuck Hicklin
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 construction of the transmission facilities	As required	KIEWIT			No impending changes							Sarah Copeland
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									Cal-ISO	Randy Willard
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							Luke Goss / Raja Ponniah (inspection summary only)
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.						Contra Costa County	Jake Albers
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 commercial operation	12/23/11	KIEWIT	Email from Christine Stora of the CEC dated 3/15/13 conditionally accepting the surface treatments.									Raja Ponniah
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	NRG			Reports submitted annually.							Dan Leach
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								Contra Costa County	Stephen L. Erickson
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.						Contra Costa County	Stephen L. Erickson
OPS	VIS-2c	Maintain landscaping, including any needed irrigation and annual or semi annual debris removal for the life of the project	Report landscaping maintenance activities, including replacement of dead or dying vegetation for the previous year of operation in the ACR	Annually	Include in the ACR	NRG			Reports submitted annually.							Dan Leach
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 PKG), David Frandsen (GenOn), David Flores and Christine Stora (CEC). Drawing documentation to follow.		3/7/2012	3/7/2012 Verified in MCR No. 21				Tharu Nadarajah
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			Contra Costa County	Tharu Nadarajah
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									Raja Ponniah

Pre-Const	Construction	Coments.	Operations	To CEC or Agency	Approved by CEC
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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	CPM	CBO	Other	Responsible Party
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							Raja Ponniah Randy Dixon
PC-1	WASTE-3a	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				BAAQMD	Raja Ponniah
CONS	WASTE-3b	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 Business day of each month	Currently No noted issues with any Monthly report			BAAQMD	Raja Ponniah
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				Kirk Emmons
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				Raja Ponniah
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		City dirt - East side - City 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			Gene Amrhein	
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			City of Antioch Engineering Department	Raja Ponniah
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				City of Antioch Engineering Department	Raja Ponniah
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					Raja Ponniah
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 11/18/2010 by J Caswell Re-Verified By Email from C Stora on 9/18/12	Approved			Raja Ponniah
CONS	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	NRG	11/16/10		Approved 7/22/2011							Stephen L. Erickson Diane Griffin
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					Diane Griffin
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	NRG			Reports submitted annually.							David Frandsen
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	NRG										David Frandsen

Color Code Key:

Pre-Const	Construction	Commit.	Operations	To CEC or Agency	Approved by CEC
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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	CPM	CBO	Other	Responsible Party
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	NRG										David Frandsen
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 Adnl 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				Stephen L. Erickson
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			Contra Costa County Fire Protection District	Raja Ponniah
COMM	WORKER SAFETY-2	Prepare and submit an O&M Safety & Health Plan containing: an IIPP, EAP, HMP, 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								Contra Costa County Fire Protection District	Margie Hansen Diane Griffin
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				Raja Ponniah
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 Business day of each month	Currently No noted issues with any Monthly report				Raja Ponniah
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				Chuck Hicklin
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				Raja Ponniah
CONS	WORKER SAFETY-8	<u>The project owner shall submit the fire protection drawings and specifications for the Battery Energy Storage System (BESS) to the Contra Costa County Fire Protection District for review and comment, and to the Delegate Chief Building Official (DCBO) for plan check and inspection, and to the CPM for review and approval.</u>	<u>Verification: At least sixty (60) days prior to the start of construction of the BESS project, the project owner shall provide the complete set of BESS fire protection drawings and specifications to the Contra Costa County Fire Protection District for review and comment, and to the DCBO for plan check, approval and construction inspection, and to the CPM for review and approval.</u>	Prior to the start of construction		KIEWIT									<u>Amended February, 2015</u>	

Marsh Landing Generating Station

Annual Compliance Report

2.0 Project Operating Status Summary

MLGS began commercial operations May 1, 2013.

The Units ran through April of 2023 when called upon by CAISO/PG&E. From May – Dec of 2023 the units were dispatched according to Market conditions. There were no significant operating status changes to the facility during the year.

Ten-to-thirteen-day summer readiness outages were performed on each unit during March 2023. Preventative Maintenance tasks were performed, and inspections conducted.

Marsh Landing Generating Station

Annual Compliance Report

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 & WEAP Training.	YES	3.1
HAZ-1	List of hazardous materials contained at the facility.	YES	3.2
HAZ-8	Site specific security plan statements.	YES	3.3
SOIL & WATER-5	Waste water reporting to DDS.	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.

Marsh Landing Generating Station

Annual Compliance Report

3.1 BIO-2

There were no required Biological Resources Monitoring Reports for 2023 related to the Black Start Battery Energy Storage System project nor any other work on site for Marsh Landing. There were no activities on site that required WEAP training for contractors or employees.

Marsh Landing Generating Station

Annual Compliance Report

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	Chemical Location	CERS ID	10480876
Facility Name	Marsh Landing Generating Station	AMMONIA CONTAINMENT SLAB	Facility ID	07-000-774528
	3201C Wilbur Ave, Antioch 94509		Status	Submitted on 2/13/2024 2:13 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)				
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS	CAS No.	
Corrosive, Toxic	AMMONIUM HYDROXIDE	Gallons	21200	21200	12200		- Health Acute	Anhydrous Ammonia	19%		7664-41-7	
	CAS No	State	Storage Container		Pressue	Waste Code	Toxicity	Water	81%		7732-1-5	
	1336-21-6	Liquid	Aboveground Tank		> Ambient		- Health Skin					
	Map: 2 Grid: D2	Type			Temperature		Corrosion					
		Mixture	Days on Site: 365		Ambient		Irritation					
							- 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	Chemical Location	CERS ID	10480876
Facility Name	Marsh Landing Generating Station	BACK PULSE AIR FILTER COMPRESSORS	Facility ID	07-000-774528
	3201C Wilbur Ave, Antioch 94509		Status	Submitted on 2/13/2024 2:13 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)		
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS CAS No.
	COMPRESSOR OIL	Gallons	8	3	8		- Health Hazard	Base Oil	90%	
	CAS No	State	Storage Container		Pressue	Waste Code	Not Otherwise Classified	Dialkyl Thiophosphate Ester	1%	268567-32-4
		Liquid	Other		Ambient			Alkaryl amine	2%	68411-46-1
	Map: 2 Grid: G3-G8	Type			Temperature					
		Mixture	Days on Site: 365		Ambient					

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station	Chemical Location	CERS ID	10480876
Facility Name	Marsh Landing Generating Station	BATTERY BANKS THROUGHOUT SITE (5kv BLDG, SWITCHYARD, ELEC PACKAGES, ADMIN)	Facility ID	07-000-774528
	3201C Wilbur Ave, Antioch 94509		Status	Submitted on 2/13/2024 2:13 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)		
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS CAS No.
DOT: 8 - Corrosives (Liquids and Solids)	LEAD ACID BATTERIES	Pounds	9503	58	9503		- Physical	Sulfuric Acid	40%	✓ 7664-93-9
		State	Storage Container		Pressue		Flammable			
Corrosive, Water Reactive, Class 2, Toxic, Oxidizing, Class 1	Map: 2 Grid: I6, G4-8, C4,k3	Liquid	Other		Ambient	Waste Code	- Physical	Lead and Lead Compounds	55%	7439-92-1
		Type			Temperature		Explosive	Antimony	5%	7440-36-0
		Mixture	Days on Site: 365		Ambient		- 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			

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station	Chemical Location	CERS ID	10480876
Facility Name	Marsh Landing Generating Station	BATTERY ENERGY STORAGE SYSTEM (BESS)	Facility ID	07-000-774528
	3201C Wilbur Ave, Antioch 94509		Status	Submitted on 2/13/2024 2:13 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)		
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS CAS No.
DOT: 8 - Corrosives (Liquids and Solids) Corrosive, Water Reactive, Class 2, Toxic, Oxidizing, Class 1	LEAD ACID BATTERIES	Pounds	80	8	80		- Physical	Sulfuric Acid	20%	✓ 7664-93-9
	CAS No	State	Storage Container		Pressue		Flammable			
	✓ EHS	Liquid	Other		Ambient	Waste Code	- Physical			
	Map: 2 Grid: G8	Type			Temperature		Explosive			
		Mixture	Days on Site: 365		Ambient		- Health			
DOT: 9 - Misc. Hazardous Materials Flammable Liquid, Class I-A	LITHIUM-ION BATTERY CUBE	Pounds	192060	11640	192060		- Physical	Hexafluoropropylene-Vinylidene	15%	9011-17-0
	CAS No	State	Storage Container		Pressue		Flammable			
	Map: 2 Grid: E9-G9	Solid	Other		Ambient	Waste Code	- Health Acute	Dimethyl Carbonate	15%	616-38-6
		Type			Temperature		Toxicity	Propylene Carbonate	15%	108-32-7
		Mixture	Days on Site: 365		Ambient		- Health Skin	Diethyl Carbonate	15%	616-38-6
							Corrosion	Ethyl Methyl Carbonate	15%	623-53-0
							Irritation			
							- Health Serious			
							Eye Damage Eye			
							Irritation			
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class III-B	SOYBEAN OIL	Gallons	4160	832	4160		- Physical			
	CAS No	State	Storage Container		Pressue		Flammable			
	8001-22-7	Liquid	Other		Ambient	Waste Code				
	Map: 2 Grid: E9-G9	Type			Temperature					
		Mixture	Days on Site: 365		Ambient					
Combustible Liquid, Class III-B	ETHYLENE GLYCOL	Gallons	430	16	430		- Health Acute	Ethylene Glycol	90%	107-21-1
	CAS No	State	Storage Container		Pressue	Waste Code	Toxicity			
	107-21-1	Liquid	Other		> Ambient		- Health Specific			
	Map: 2 Grid: 9E-9G	Type			Temperature		Target Organ			
		Mixture	Days on Site: 365		> Ambient		Toxicity			

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station	Chemical Location	CERS ID	10480876
Facility Name	Marsh Landing Generating Station	CEMS SHELTERS UNITS 1-4	Facility ID	07-000-774528
	3201C Wilbur Ave, Antioch 94509		Status	Submitted on 2/13/2024 2:13 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)			
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS	CAS No.
	NITROGEN, OXYGEN, CARBON MONOXIDE	Cu. Feet	3300	150	3150		- Physical Gas	NITROGEN	89%		7727-37-9
		<u>State</u>	<u>Storage Container</u>		<u>Pressue</u>	<u>Waste Code</u>	Under Pressure	OXYGEN	10%		7782-44-7
		Gas	Cylinder		> Ambient		- Physical	CARBON MONOXIDE	0%		630-08-0
	<u>CAS No</u>	<u>Type</u>			<u>Temperature</u>		Explosive				
	Map: 2 Grid: E3-8	Mixture	Days on Site: 365		Ambient		- Health				
							Reproductive				
							Toxicity				
							- Health Simple				
							Asphyxiant				
	NITROGEN, NITRIC OXIDE, CARBON MONOXIDE	Cu. Feet	3800	250	2400		- Physical Gas	NITROGEN	100%		7727-37-9
		<u>State</u>	<u>Storage Container</u>		<u>Pressue</u>	<u>Waste Code</u>	Under Pressure	NITRIC OXIDE		✓	10102-43-9
		Gas	Cylinder		> Ambient		- Physical	CARBON MONOXIDE			630-08-0
	<u>CAS No</u>	<u>Type</u>			<u>Temperature</u>		Explosive	NITROGEN OXIDES			10102-44-0
	Map: 2 Grid: E3-E8	Mixture	Days on Site: 365		Ambient		- Health Simple				
							Asphyxiant				
	NITROGEN, NITRIC OXIDE	Cu. Feet	2100	150	1800		- Physical Gas	NITROGEN	100%		7727-37-9
		<u>State</u>	<u>Storage Container</u>		<u>Pressue</u>	<u>Waste Code</u>	Under Pressure	NITRIC OXIDE		✓	10102-43-9
		Gas	Cylinder		> Ambient		- Physical	NITROGEN OXIDES			10102-44-0
	<u>CAS No</u>	<u>Type</u>			<u>Temperature</u>		Explosive				
	Map: 2 Grid: E3-E8	Mixture	Days on Site: 365		Ambient		- Health Simple				
							Asphyxiant				
DOT: 2.2 - Nonflammable Gases	NITROGEN	Cu. Feet	3600	300	3000		- Physical Gas				
		<u>State</u>	<u>Storage Container</u>		<u>Pressue</u>	<u>Waste Code</u>	Under Pressure				
	<u>CAS No</u>	Gas	Cylinder		> Ambient		- Physical				
	7727-37-9	<u>Type</u>			<u>Temperature</u>		Explosive				
	Map: 2 Grid: E3-E8	Pure	Days on Site: 365		Ambient		- Health Simple				
							Asphyxiant				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station	Chemical Location	CERS ID	10480876
Facility Name	Marsh Landing Generating Station	COMPRESSOR BUILDING	Facility ID	07-000-774528
	3201C Wilbur Ave, Antioch 94509		Status	Submitted on 2/13/2024 2:13 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)		
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS CAS No.
DOT: 2.2 - Nonflammable Gases	OXYGEN	Cu. Feet	843	281	562			- Physical Gas		
Oxidizing, Class 2	CAS No 7782-44-7 Map: 2 Grid: C6	State Gas Type Pure	Storage Container Cylinder Days on Site: 365		Pressue > Ambient Temperature Ambient	Waste Code		Under Pressure - Physical Oxidizer		
DOT: 2.1 - Flammable Gases	ACETYLENE	Cu. Feet	764	382	764			- Physical		
Unstable (Reactive), Class 2, Flammable Gas	CAS No 74-86-2 Map: 2 Grid: C6	State Gas Type Pure	Storage Container Cylinder Days on Site: 365		Pressue > Ambient Temperature Ambient	Waste Code		Flammable - Physical Gas Under Pressure - Physical Explosive - Health Simple Asphyxiant		

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station	Chemical Location	CERS ID	10480876
Facility Name	Marsh Landing Generating Station	CONTROL OIL RESERVOIRS	Facility ID	07-000-774528
	3201C Wilbur Ave, Antioch 94509		Status	Submitted on 2/13/2024 2:13 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)		
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS CAS No.
	LUBE OIL	Gallons	420	140	420		- Health Hazard			
	CAS No	State	Storage Container		Pressue	Waste Code	Not Otherwise Classified			
		Liquid	Other		Ambient					
	Map: 2 Grid: F3-F7	Type			Temperature					
		Mixture	Days on Site: 365		Ambient					

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station				Chemical Location	CERS ID	10480876				
Facility Name	Marsh Landing Generating Station				DAIS UNIT AIR COMPRESSORS	Facility ID	07-000-774528				
3201C Wilbur Ave, Antioch 94509						Status	Submitted on 2/13/2024 2:13 PM				
					Annual Waste Amount	Hazardous Components (For mixture only)					
DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Federal Hazard Categories	Component Name			% Wt	EHS CAS No.
	COMPRESSOR OIL	Gallons	100	30	80	- Health Hazard	Base Oil	90%			
	CAS No	State	Storage Container		Pressue	Waste Code	Not Otherwise	Dialkyl Thiophosphate Ester	1%	268567-32-4	
		Liquid	Other		Ambient		Classified	Alkaryl amine	2%	68411-46-1	
	Map: 2 Grid: F3-F8	Type			Temperature						
		Mixture	Days on Site: 365		Ambient						
					Annual Waste Amount	Hazardous Components (For mixture only)					
	ULTRA COOLANT	Gallons	60	15	60	- Health Hazard	Polypropylene glycol	65%			
	CAS No	State	Storage Container		Pressue	Waste Code	Not Otherwise	Pentaerythritol ester	27%		
		Liquid	Other		Ambient		Classified	Alkylated diphenylamine	5%	68411-46-1	
	Map: 2 Grid: F3-F8	Type			Temperature			Barium dinonyl-naphthalene	0%	25619-56-1	
		Mixture	Days on Site: 365		> Ambient			sulfonate			

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station	Chemical Location	CERS ID	10480876
Facility Name	Marsh Landing Generating Station	EMERGENCY GENERATOR	Facility ID	07-000-774528
	3201C Wilbur Ave, Antioch 94509		Status	Submitted on 2/13/2024 2:13 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)		
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS CAS No.
DOT: 8 - Corrosives (Liquids and Solids)	LEAD ACID BATTERIES	Pounds	48	24	48		- Physical	Sulfuric Acid	40%	✓ 7664-93-9
Corrosive, Water Reactive, Class 2, Toxic, Oxidizing, Class 1	CAS No. <input checked="" type="checkbox"/> EHS Map: 2 Grid: G6	State Liquid Type Mixture	Storage Container Other Days on Site: 365		Pressure Ambient Temperature Ambient	Waste Code	- 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			
DOT: 3 - Flammable and Combustible Liquids	DIESEL FUEL NO. 2	Gallons	1100	1100	800		- Physical	DIESEL FUEL NO. 2	98%	68476-34-6
Combustible Liquid, Class II	CAS No. 68476-34-6 Map: 2 Grid: G6	State Liquid Type Mixture	Storage Container Aboveground Tank Days on Site: 365		Pressure Ambient Temperature Ambient	Waste Code	- Flammable - Health Carcinogenicity - Health Acute Toxicity - Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Specific Target Organ Toxicity - Health Aspiration Hazard	RENEWABLE DIESEL FATTY ACID METHYL ESTERS NAPHTHALENE	10% 3% 0%	91-20-3

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station	Chemical Location	CERS ID	10480876
Facility Name	Marsh Landing Generating Station	FIRE PUMP BUILDING	Facility ID	07-000-774528
	3201C Wilbur Ave, Antioch 94509		Status	Submitted on 2/13/2024 2:13 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)		
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS CAS No.
DOT: 8 - Corrosives (Liquids and Solids)	LEAD ACID BATTERIES	Pounds	100	50	100		- Physical	Sulfuric Acid	40%	✓ 7664-93-9
Corrosive, Water Reactive, Class 2, Toxic, Oxidizing, Class 1	CAS No. <input checked="" type="checkbox"/> EHS Map: 2 Grid: C2	State Liquid Type Mixture	Storage Container Other Days on Site: 365		Pressue Ambient Temperature Ambient	Waste Code	- 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			
DOT: 3 - Flammable and Combustible Liquids	DIESEL FUEL NO. 2	Gallons	359	359	280		- Physical	DIESEL FUEL NO. 2	98%	68476-34-6
Combustible Liquid, Class II	CAS No. 68476-34-6 Map: 2 Grid: C2	State Liquid Type Mixture	Storage Container Tank Inside Building Days on Site: 365		Pressue Ambient Temperature Ambient	Waste Code	- Flammable - Health Carcinogenicity - Health Acute Toxicity - Health Skin Corrosion Irritation - Health Respiratory Skin Sensitization - Health Specific Target Organ Toxicity - Health Aspiration Hazard	RENEWABLE DIESEL FATTY ACID METHYL ESTERS NAPHTHALENE	10% 3% 0%	91-20-3

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station	Chemical Location					CERS ID	10480876		
Facility Name	Marsh Landing Generating Station	FUEL GAS CHROMATOGRAPH					Facility ID	07-000-774528		
	3201C Wilbur Ave, Antioch 94509						Status	Submitted on 2/13/2024 2:13 PM		
						Annual Waste	Hazardous Components (For mixture only)			
DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Federal Hazard				
			Max. Daily	Largest Cont.	Avg. Daily	Amount	Categories	Component Name	% Wt	EHS CAS No.
DOT: 2.1 - Flammable Gases	METHANE MIXTURE	Cu. Feet	500	250	250		- Physical	ETHANE	100%	74-84-0
Flammable Gas	CHROMATOGRAPH CAL GAS	State	Storage Container		Pressue	Waste Code	Flammable	METHANE	100%	74-82-8
		Gas	Cylinder		> Ambient		- Physical Gas	PROPANE	100%	74-98-6
	CAS No	Type			Temperature		Under Pressure	NITROGEN	10%	7727-37-9
	Map: 2 Grid: C6	Mixture	Days on Site: 365		Ambient		- Physical Explosive - Health Simple Asphyxiant			
DOT: 2.2 - Nonflammable Gases	HELIUM	Cu. Feet	600	300	600		- Physical Gas			
		State	Storage Container		Pressue	Waste Code	Under Pressure			
	CAS No	Gas	Cylinder		> Ambient		- Physical			
	7440-59-7	Type			Temperature		Explosive			
	Map: 2 Grid: C6	Pure	Days on Site: 365		Ambient		- Health Simple Asphyxiant			
DOT: 2.2 - Nonflammable Gases	COMPRESSED AIR ZERO	Cu. Feet	600	300	300		- Physical Gas			
		State	Storage Container		Pressue	Waste Code	Under Pressure			
	CAS No	Gas	Cylinder		> Ambient					
		Type			Temperature					
	Map: 2 Grid: C6	Mixture	Days on Site: 365		Ambient					
DOT: 2.2 - Nonflammable Gases	NITROGEN	Cu. Feet	600	300	300		- Physical Gas			
		State	Storage Container		Pressue	Waste Code	Under Pressure			
	CAS No	Gas	Cylinder		> Ambient		- Physical			
	7727-37-9	Type			Temperature		Explosive			
	Map: 2 Grid: C6	Pure	Days on Site: 365		Ambient		- Health Simple Asphyxiant			
DOT: 2.1 - Flammable Gases	HYDROGEN	Cu. Feet	600	300	300		- Physical			
Flammable Gas		State	Storage Container		Pressue	Waste Code	Flammable			
	CAS No	Gas	Cylinder		> Ambient		- Physical Gas			
	1333-74-0	Type			Temperature		Under Pressure			
	Map: 2 Grid: C6	Pure	Days on Site: 365		Ambient		- Physical Explosive - Health Simple Asphyxiant			

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station	Chemical Location	CERS ID	10480876
Facility Name	Marsh Landing Generating Station	FUEL GAS COMPRESSORS	Facility ID	07-000-774528
	3201C Wilbur Ave, Antioch 94509		Status	Submitted on 2/13/2024 2:13 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)		
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS CAS No.
	LUBE OIL	Gallons	315	105	315		- Health Hazard			
	CAS No	State	Storage Container		Pressue	Waste Code	Not Otherwise Classified			
		Liquid	Aboveground Tank		Ambient					
	Map: 2 Grid: C6	Type			Temperature					
		Mixture	Days on Site: 365		Ambient					

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station	Chemical Location	CERS ID	10480876
Facility Name	Marsh Landing Generating Station	FUEL GAS CONDITIONING SKID AND FILTER/SEPARATOR	Facility ID	07-000-774528
	3201C Wilbur Ave, Antioch 94509		Status	Submitted on 2/13/2024 2:13 PM

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

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station				Chemical Location	FUEL GAS DEW POINT HEATERS				CERS ID	10480876		
Facility Name	Marsh Landing Generating Station									Facility ID	07-000-774528		
	3201C Wilbur Ave, Antioch 94509									Status	Submitted on 2/13/2024 2:13 PM		
DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)					
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS	CAS No.		
	PROPYLENE GLYCOL 30%	Gallons	18932	9466	18932		- Health Hazard	PROPYLENE GLYCOL	96%		57-55-6		
	CAS No	State	Storage Container		Pressue	Waste Code	Not Otherwise	WATER	4%		7732-18-5		
	57-55-6	Liquid	Aboveground Tank		Ambient		Classified						
	Map: 2 Grid: D6	Type			Temperature								
		Mixture	Days on Site: 365		> Ambient								

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station	Chemical Location	CERS ID	10480876
Facility Name	Marsh Landing Generating Station	GENERATOR AIR COMPRESSOR, SHOP COMPRESSOR	Facility ID	07-000-774528
	3201C Wilbur Ave, Antioch 94509		Status	Submitted on 2/13/2024 2:13 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)		
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS CAS No.
	COMPRESSOR OIL	Gallons	5	2	5		- Health Hazard	Base Oil	90%	
	CAS No	State	Storage Container		Pressue	Waste Code	Not Otherwise Classified	Dialkyl Thiophosphate Ester	1%	268567-32-4
		Liquid	Other		Ambient			Alkaryl amine	2%	68411-46-1
	Map: 2 Grid: G3-G8, C3	Type			Temperature					
		Mixture	Days on Site: 365		Ambient					

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. Marsh Landing Generating Station			Chemical Location				CERS ID	10480876		
Facility Name Marsh Landing Generating Station			HAZARDOUS MATERIALS STORAGE				Facility ID	07-000-774528		
3201C Wilbur Ave, Antioch 94509							Status	Submitted on 2/13/2024 2:13 PM		
DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)		
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS CAS No.
	Turbine Blade Wash Soap	Gallons	62	55	60		- Health Skin	Isotridecylalcohol, Ethoxylated	20%	69011-36-5
	<u>CAS No</u>	<u>State</u>	<u>Storage Container</u>		<u>Pressure</u>	<u>Waste Code</u>	Corrosion	3-Butoxypropan-2-ol	3%	5131-66-8
		Liquid	Plastic/Non-metalic Drum, Other		Ambient		Irritation	Oleoyl Sarcosinic Acid	3%	110-25-8
	Map: 2 Grid: H12	<u>Type</u>			<u>Temperature</u>		- Health	Ethynol, 2, 2, '[[[(Methyl-1H-	1%	80584-88-9
		Mixture	Days on Site: 365		Ambient		Respiratory Skin Sensitization	Benzotriazol-1...]]))		
	COMPRESSOR OIL	Gallons	15	5	7		- Health Hazard	Base Oil	90%	
	<u>CAS No</u>	<u>State</u>	<u>Storage Container</u>		<u>Pressure</u>	<u>Waste Code</u>	Not Otherwise Classified	Alkaryl amine	2%	68411-46-1
		Liquid	Plastic Bottle or Jug		Ambient			Dialkyl Thiophosphate Ester	1%	268567-32-4
	Map: 2 Grid: H12	<u>Type</u>			<u>Temperature</u>					
		Mixture	Days on Site: 365		Ambient					
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class II	PAINT	Gallons	15	5	12		- Health			
	<u>CAS No</u>	<u>State</u>	<u>Storage Container</u>		<u>Pressure</u>	<u>Waste Code</u>	Carcinogenicity			
	8052-41-3	Liquid	Other		Ambient		- Health Skin			
	Map: 2 Grid: H12	<u>Type</u>			<u>Temperature</u>		Corrosion			
		Mixture	Days on Site: 365		Ambient		Irritation			
	LUBRICATING AND HYDRAULIC OILS	Gallons	715	55	605		- Health			
	<u>CAS No</u>	<u>State</u>	<u>Storage Container</u>		<u>Pressure</u>	<u>Waste Code</u>	Hazard			
		Liquid	Steel Drum, Plastic/Non-metalic		Ambient		Not Otherwise Classified			
	Map: 2 Grid: H12	<u>Type</u>	Drum		<u>Temperature</u>					
		Mixture	Days on Site: 365		Ambient					

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station	Chemical Location	CERS ID	10480876
Facility Name	Marsh Landing Generating Station	HAZARDOUS WASTE STORAGE	Facility ID	07-000-774528
	3201C Wilbur Ave, Antioch 94509		Status	Submitted on 2/13/2024 2:13 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)		
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS CAS No.
	OILY RAGS AND SPILL DEBRIS	Pounds	1000	500	250	1900	- Physical			
	<u>CAS No</u>	<u>State</u>	<u>Storage Container</u>		<u>Pressue</u>	<u>Waste Code</u>	Flammable			
		Solid	Steel Drum, Box		Ambient	352	- Physical			
	Map: 2 Grid: C4	<u>Type</u>			<u>Temperature</u>		SelfHeating			
		Waste	Days on Site: 365		Ambient		- 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	Gallons	110	55	30	1000	- Health	Lubricating Oils, used	90%	70514-12-4
	<u>CAS No</u>	<u>State</u>	<u>Storage Container</u>		<u>Pressue</u>	<u>Waste Code</u>	Carcinogenicity	Water/Solids	10%	7732-18-5
		Liquid	Steel Drum		Ambient	221	- Health			
	Map: 2 Grid: C4	<u>Type</u>			<u>Temperature</u>		Reproductive			
		Waste	Days on Site: 365		Ambient		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			

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station	Chemical Location	CERS ID	10480876
Facility Name	Marsh Landing Generating Station	MACHINE SHOP	Facility ID	07-000-774528
	3201C Wilbur Ave, Antioch 94509		Status	Submitted on 2/13/2024 2:13 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)		
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS CAS No.
DOT: 3 - Flammable and Combustible Liquids Flammable Liquid, Class I-B	GASOLINE (Unleaded)	Gallons	10	5	5		- Physical	GASOLINE	100%	86290-81-5
	<u>CAS No</u>	<u>State</u>	<u>Storage Container</u>		<u>Pressue</u>	<u>Waste Code</u>	Flammable			
	86290-81-5	Liquid	Other		Ambient		- Health	TOLUENE	20%	108-88-3
	Map: 2 Grid: C4	<u>Type</u>			<u>Temperature</u>		Carcinogenicity	XYLENE	8%	1330-20-7
		Mixture	Days on Site: 365		Ambient		- Health	PENTANE	7%	540-84-1
							Reproductive	BUTANE	6%	106-97-8
							Toxicity			
							- Health Skin			
							Corrosion			
							Irritation			
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class II	DIESEL FUEL NO. 2	Gallons	10	5	10		- Physical	DIESEL FUEL NO. 2	98%	68476-34-6
	<u>CAS No</u>	<u>State</u>	<u>Storage Container</u>		<u>Pressue</u>	<u>Waste Code</u>	Flammable			
	68476-34-6	Liquid	Other		Ambient		- Health	RENEWABLE DIESEL	10%	
	Map: 2 Grid: C4	<u>Type</u>			<u>Temperature</u>		Carcinogenicity	FATTY ACID METHYL ESTERS	3%	
		Mixture	Days on Site: 365		Ambient		- Health Acute	NAPHTHALENE	0%	91-20-3
							Toxicity			
							- Health Skin			
							Corrosion			
							Irritation			
							- Health			
	LUBRICATING AND HYDRAULIC OILS	Gallons	40	5	25		- Health Hazard			
	<u>CAS No</u>	<u>State</u>	<u>Storage Container</u>		<u>Pressue</u>	<u>Waste Code</u>	Not Otherwise			
		Liquid	Plastic Bottle or Jug, Other		Ambient		Classified			
	Map: 2 Grid: C4	<u>Type</u>			<u>Temperature</u>					
		Mixture	Days on Site: 365		Ambient					

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station				Chemical Location	CERS ID 10480876				
Facility Name	Marsh Landing Generating Station				MAIN AIR COMPRESSORS	Facility ID 07-000-774528				
	3201C Wilbur Ave, Antioch 94509					Status Submitted on 2/13/2024 2:13 PM				
DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)		
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS CAS No.
	COMPRESSOR OIL	Gallons	14	5	12		- Health Hazard	Base Oil	90%	
	CAS No	State	Storage Container		Pressue	Waste Code	Not Otherwise	Dialkyl Thiophosphate Ester	1%	268567-32-4
		Liquid	Other		Ambient		Classified	Alkaryl amine	2%	68411-46-1
	Map: 2 Grid: D6	Type			Temperature					
		Mixture	Days on Site: 365		Ambient					

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. Marsh Landing Generating Station			Chemical Location				CERS ID	10480876		
Facility Name Marsh Landing Generating Station			NORTH & EAST OUTSIDE CORNER OF WAREHOUSE				Facility ID	07-000-774528		
3201C Wilbur Ave, Antioch 94509							Status	Submitted on 2/13/2024 2:13 PM		
DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)		
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS CAS No.
DOT: 2.2 - Nonflammable Gases	HELIUM	Cu. Feet	900	300	600		- Physical Gas			
	<u>CAS No</u>	<u>State</u>	<u>Storage Container</u>		<u>Pressue</u>	<u>Waste Code</u>	Under Pressure			
	7440-59-7	Gas	Cylinder		> Ambient		- Physical			
	Map: 2 Grid: H12	<u>Type</u>			<u>Temperature</u>		Explosive			
		Pure	Days on Site: 365		Ambient		- Health Simple			
							Asphyxiant			
DOT: 2.2 - Nonflammable Gases	NITROGEN	Cu. Feet	22800	500	12000		- Physical Gas			
	<u>CAS No</u>	<u>State</u>	<u>Storage Container</u>		<u>Pressue</u>	<u>Waste Code</u>	Under Pressure			
	7727-37-9	Gas	Cylinder		> Ambient		- Physical			
	Map: 2 Grid: H12	<u>Type</u>			<u>Temperature</u>		Explosive			
		Pure	Days on Site: 365		Ambient		- Health Simple			
							Asphyxiant			
DOT: 2.1 - Flammable Gases Flammable Gas	METHANE MIXTURE CHROMATOGRAPH CAL GAS	Cu. Feet	500	250	250		- Physical	ETHANE	100%	74-84-0
	<u>CAS No</u>	<u>State</u>	<u>Storage Container</u>		<u>Pressue</u>	<u>Waste Code</u>	Flammable	METHANE	100%	74-82-8
		Gas	Cylinder		> Ambient		- Physical Gas	PROPANE	100%	74-98-6
	Map: 2 Grid: H12	<u>Type</u>			<u>Temperature</u>		Under Pressure	NITROGEN	10%	7727-37-9
		Mixture	Days on Site: 365		Ambient		- Physical			
							Explosive			
							- Health Simple			
							Asphyxiant			
DOT: 2.2 - Nonflammable Gases	ULTRA ZERO COMPRESSED AIR	Cu. Feet	1200	300	600		- Physical Gas			
	<u>CAS No</u>	<u>State</u>	<u>Storage Container</u>		<u>Pressue</u>	<u>Waste Code</u>	Under Pressure			
		Gas	Cylinder		> Ambient		- Physical			
	Map: 2 Grid: H12	<u>Type</u>			<u>Temperature</u>		Explosive			
		Mixture	Days on Site: 365		Ambient					
	NITROGEN, OXYGEN, CARBON MONOXIDE	Cu. Feet	3300	150	2250		- Physical Gas	NITROGEN	89%	7727-37-9
	<u>CAS No</u>	<u>State</u>	<u>Storage Container</u>		<u>Pressue</u>	<u>Waste Code</u>	Under Pressure	OXYGEN	10%	7782-44-7
		Gas	Cylinder		> Ambient		- Physical	CARBON MONOXIDE	0%	630-08-0
	Map: 2 Grid: H12	<u>Type</u>			<u>Temperature</u>		Explosive			
		Mixture	Days on Site: 365		Ambient		- Health			
							Reproductive			
							Toxicity			
							- Health Simple			
							Asphyxiant			
	NITROGEN, NITRIC OXIDE	Cu. Feet	2400	150	1200		- Physical Gas	NITROGEN	100%	7727-37-9
	<u>CAS No</u>	<u>State</u>	<u>Storage Container</u>		<u>Pressue</u>	<u>Waste Code</u>	Under Pressure	NITRIC OXIDE		✓ 10102-43-9
		Gas	Cylinder		> Ambient		- Physical	NITROGEN OXIDES		10102-44-7
	Map: 2 Grid: H12	<u>Type</u>			<u>Temperature</u>		Explosive			
		Mixture	Days on Site: 365		Ambient		- Health Simple			
							Asphyxiant			
	NITROGEN, NITRIC OXIDE, CARBON MONOXIDE	Cu. Feet	3750	250	1500		- Physical Gas	NITROGEN	100%	7727-37-9
	<u>CAS No</u>	<u>State</u>	<u>Storage Container</u>		<u>Pressue</u>	<u>Waste Code</u>	Under Pressure	NITRIC OXIDE		✓ 10102-43-9
		Gas	Cylinder		> Ambient		- Physical	CARBON MONOXIDE		630-08-0
	Map: 2 Grid: H12	<u>Type</u>			<u>Temperature</u>		Explosive	NITROGEN OXIDES		10102-44-0
		Mixture	Days on Site: 365		Ambient		- Health Simple			
							Asphyxiant			

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station	Chemical Location	CERS ID	10480876
Facility Name	Marsh Landing Generating Station	NORTH & EAST OUTSIDE CORNER OF WAREHOUSE	Facility ID	07-000-774528
	3201C Wilbur Ave, Antioch 94509		Status	Submitted on 2/13/2024 2:13 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)		
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS CAS No.
DOT: 2.1 - Flammable Gases	HYDROGEN	Cu. Feet	1500	300	900		- Physical			
Flammable Gas	<u>CAS No</u>	<u>State</u>	<u>Storage Container</u>		<u>Pressue</u>	<u>Waste Code</u>	Flammable			
	1333-74-0	Gas	Cylinder		> Ambient		- Physical Gas			
	Map: 2 Grid: H12	<u>Type</u>			<u>Temperature</u>		Under Pressure			
		Pure	Days on Site: 365		Ambient		- Physical			
							Explosive			
							- Health Simple			
							Asphyxiant			

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station	Chemical Location	CERS ID	10480876
Facility Name	Marsh Landing Generating Station	OIL WATER SEPARATORS NEAR U1 SWITCHYARD & NORTH OF UNITS 2&3	Facility ID	07-000-774528
	3201C Wilbur Ave, Antioch 94509		Status	Submitted on 2/13/2024 2:13 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)		
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS CAS No.
	OILY WATER	Gallons	3000	2000	3000			- Health		
	<u>CAS No</u>	<u>State</u>	<u>Storage Container</u>		<u>Pressue</u>	<u>Waste Code</u>		Carcinogenicity		
		Liquid	Other		Ambient			- Health		
	Map: 2 Grid: D6, H4	<u>Type</u>			<u>Temperature</u>			Reproductive		
		Mixture	Days on Site: 365		Ambient			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		

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station	Chemical Location	CERS ID	10480876
Facility Name	Marsh Landing Generating Station	PORTABLE TANKS AT COVERED PARKING LOT AND TURBINES (as needed)	Facility ID	07-000-774528
	3201C Wilbur Ave, Antioch 94509		Status	Submitted on 2/13/2024 2:13 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)		
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS CAS No.
	CLEANBLADE GTC 1000	Gallons	575	400	50		- Health	FATTY ALCOLHOL ALKOXYLATE	15%	69227-21-0
	CAS No	State	Storage Container		Pressue	Waste Code	Carcinogenicity	PROPYLENE GLYCOL N-BUTYL	5%	5131-66-8
		Liquid	Tank Wagon		Ambient		- Health	ETHER		
	Map: 2 Grid: D12, F3-F8	Type			Temperature		Reproductive	SEBACIC ACID	2%	70103-35-4
		Mixture	Days on Site: 365		Ambient		Toxicity	DIETHANOLAMINE	1%	111-42-2
							- 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	Chemical Location	CERS ID	10480876
Facility Name	Marsh Landing Generating Station	REFUELING TRUCK	Facility ID	07-000-774528
	3201C Wilbur Ave, Antioch 94509		Status	Submitted on 2/13/2024 2:13 PM

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

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station	Chemical Location	CERS ID	10480876
Facility Name	Marsh Landing Generating Station	SPARE TRANSFORMER NORTH OF WAREHOUSE	Facility ID	07-000-774528
	3201C Wilbur Ave, Antioch 94509		Status	Submitted on 2/13/2024 2:13 PM

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

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station				Chemical Location	CERS ID	10480876				
Facility Name	Marsh Landing Generating Station				SWITCHYARD	Facility ID	07-000-774528				
	3201C Wilbur Ave, Antioch 94509					Status	Submitted on 2/13/2024 2:13 PM				
						Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)			
DOT Code/Fire Haz. Class	Common Name	Unit	Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS	CAS No.
	HYDRAULIC OIL	Gallons	90	15	90		- Health Acute	Gas Oils	85%		64742-79-6
	CAS No	State	Storage Container		Pressue	Waste Code	Toxicity	Butylated hydroxytoluene	0%		128-37-0
		Liquid	Aboveground Tank		Ambient		- Health Skin				
	Map: 2 Grid: H3-H7	Type			Temperature		Corrosion				
		Mixture	Days on Site: 365		Ambient		Irritation				
							- Health				
							Aspiration Hazard				
DOT: 2.2 - Nonflammable Gases	SULFUR HEXAFLUORIDE	Cu. Feet	3015	503	3015		- Physical Gas				
	CAS No	State	Storage Container		Pressue	Waste Code	Under Pressure				
	2551-62-4	Gas	Other		> Ambient		- Physical				
	Map: 2 Grid: H3-H7	Type			Temperature		Explosive				
		Pure	Days on Site: 365		Ambient		- Health Simple				
							Asphyxiant				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station	Chemical Location	CERS ID	10480876
Facility Name	Marsh Landing Generating Station	TA FANS	Facility ID	07-000-774528
	3201C Wilbur Ave, Antioch 94509		Status	Submitted on 2/13/2024 2:13 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)		
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS CAS No.
	LUBE OIL	Gallons	864	108	680		- Health Hazard			
	CAS No	State	Storage Container		Pressue	Waste Code	Not Otherwise Classified			
		Liquid	Other		Ambient					
	Map: 2 Grid: E3-E7	Type			Temperature					
		Mixture	Days on Site: 365		Ambient					

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station	Chemical Location	CERS ID	10480876
Facility Name	Marsh Landing Generating Station	Transformers Throughout (GSU, AUX, and SPARE)	Facility ID	07-000-774528
	3201C Wilbur Ave, Antioch 94509		Status	Submitted on 2/13/2024 2:13 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)			
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS	CAS No.
	MINERAL OIL, HYTRANS 61	Gallons	87893	15224	87893		- Health	DISTILLATES, PETROLEUM	99%		64742-53-6
	CAS No	State	Storage Container		Pressue	Waste Code	Respiratory Skin	2, 6-DI-BUTYL-P-CRESOL (BHT)	1%		128-37-0
		Liquid	Other		Ambient		Sensitization				
	Map: 2 Grid: G3-G7, G11	Type			Temperature		- Health Serious				
		Mixture	Days on Site: 365		Ambient		Eye Damage Eye				
							Irritation				
							- Health				
							Aspiration Hazard				

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station	Chemical Location	CERS ID	10480876
Facility Name	Marsh Landing Generating Station	TURBINES	Facility ID	07-000-774528
	3201C Wilbur Ave, Antioch 94509		Status	Submitted on 2/13/2024 2:13 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)		
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS CAS No.
	LUBE OIL	Gallons	26000	7244	24200		- Health Hazard			
	CAS No	State	Storage Container		Pressue	Waste Code	Not Otherwise			
	64742-54-7	Liquid	Other		Ambient		Classified			
	Map: 2 Grid: F4-F8	Type			Temperature					
		Mixture	Days on Site: 365		Ambient					

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station	Chemical Location	CERS ID	10480876
Facility Name	Marsh Landing Generating Station	TURBINES AND ELECTRICAL PACKAGES	Facility ID	07-000-774528
	3201C Wilbur Ave, Antioch 94509		Status	Submitted on 2/13/2024 2:13 PM

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

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station	Chemical Location	CERS ID	10480876
Facility Name	Marsh Landing Generating Station	TURNING GEAR LUBE OIL	Facility ID	07-000-774528
	3201C Wilbur Ave, Antioch 94509		Status	Submitted on 2/13/2024 2:13 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)		
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS CAS No.
	LUBE OIL	Gallons	76	19	76		- Health Hazard			
	CAS No	State	Storage Container		Pressue	Waste Code	Not Otherwise Classified			
		Liquid	Other		Ambient					
	Map: 2 Grid: G3-G8	Type			Temperature					
		Mixture	Days on Site: 365		Ambient					

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station				Chemical Location					CERS ID	10480876		
Facility Name	Marsh Landing Generating Station				Various Air Receivers				Facility ID	07-000-774528			
3201C Wilbur Ave, Antioch 94509								Status	Submitted on 2/13/2024 2:13 PM				
						Annual Waste			Hazardous Components				
							Federal Hazard			(For mixture only)			
DOT Code/Fire Haz. Class	Common Name	Unit	Max. Daily	Largest Cont.	Avg. Daily	Amount	Categories	Component Name	% Wt	EHS	CAS No.		
DOT: 2.2 - Nonflammable Gases	AIR	Cu. Feet	3753	2115	2369		- Physical Gas						
	CAS No	State	Storage Container		Pressue	Waste Code	Under Pressure						
	132259-10-0	Gas	Aboveground Tank		> Ambient								
	Map: 2	Type			Temperature								
	Grid: C3-G8	Pure	Days on Site: 365		Ambient								

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station	Chemical Location	CERS ID	10480876
Facility Name	Marsh Landing Generating Station	WAREHOUSE	Facility ID	07-000-774528
	3201C Wilbur Ave, Antioch 94509		Status	Submitted on 2/13/2024 2:13 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)		
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS CAS No.
DOT: 8 - Corrosives (Liquids and Solids)	LEAD ACID BATTERIES	Pounds	300	300	300		- Physical	Sulfuric Acid	40%	✓ 7664-93-9
Corrosive, Water Reactive, Class 2, Toxic, Oxidizing, Class 1	CAS No. <input type="checkbox"/> EHS	State	Storage Container		Pressue	Waste Code	- Flammable			
		Liquid	Other		Ambient		- Physical			
		Type			Temperature		Explosive			
		Mixture	Days on Site: 365		Ambient		- 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			

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station	Chemical Location	CERS ID	10480876
Facility Name	Marsh Landing Generating Station	WAREHOUSE FLAMMABLE CABINETS	Facility ID	07-000-774528
	3201C Wilbur Ave, Antioch 94509		Status	Submitted on 2/13/2024 2:13 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)		
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS CAS No.
	ULTRA COOLANT	Gallons	16	5.3	11		- Health Hazard	Polypropylene glycol	65%	
	<u>CAS No</u>	<u>State</u>	<u>Storage Container</u>		<u>Pressue</u>	<u>Waste Code</u>	Not Otherwise Classified	Pentaerythritol ester	27%	
		Liquid	Plastic Bottle or Jug		Ambient			Alkylated diphenylamine	5%	68411-46-1
	Map: 2 Grid: H12	<u>Type</u>			<u>Temperature</u>			Barium dinonyl-naphthalene sulfonate	0%	25619-56-1
		Mixture	Days on Site: 365		Ambient					
DOT: 3 - Flammable and Combustible Liquids	GASOLINE (Unleaded)	Gallons	20	5	20		- Physical Flammable	GASOLINE	100%	86290-81-5
Flammable Liquid, Class I-B	<u>CAS No</u>	<u>State</u>	<u>Storage Container</u>		<u>Pressue</u>	<u>Waste Code</u>	- Health	TOLUENE	20%	108-88-3
		Liquid	Other		Ambient		Carcinogenicity	XYLENE	8%	1330-20-7
	Map: 2 Grid: H12	<u>Type</u>			<u>Temperature</u>		- Health	PENTANE	7%	540-84-1
		Mixture	Days on Site: 365		Ambient		Reproductive Toxicity	BUTANE	6%	106-97-8
							- Health Skin Corrosion Irritation			
							- Health Serious Eye Damage Eye Irritation			
							- Health Specific Target Organ Toxicity			
							- Health Aspiration Hazard			
							- Health Germ Cell Mutagenicity			
DOT: 3 - Flammable and Combustible Liquids	DIESEL FUEL NO. 2	Gallons	10	5	10		- Physical Flammable	DIESEL FUEL NO. 2	100%	68476-34-6
Combustible Liquid, Class II	<u>CAS No</u>	<u>State</u>	<u>Storage Container</u>		<u>Pressue</u>	<u>Waste Code</u>	- Health	RENEWABLE DIESEL	10%	
	68476-34-6	Liquid	Other		Ambient		Carcinogenicity	FATTY ACID METHYL ESTERS	3%	
	Map: 2 Grid: H12	<u>Type</u>			<u>Temperature</u>		- Health Acute	NAPTHALENE	0%	91-20-3
		Mixture	Days on Site: 365		Ambient		Toxicity			
							- Health Skin Corrosion Irritation			
							- Health Respiratory Skin Sensitization			
							- Health Specific Target Organ Toxicity			
							- Health Aspiration Hazard			

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	Marsh Landing Generating Station			Chemical Location			CERS ID	10480876		
Facility Name	Marsh Landing Generating Station			WATER TREATMENT BUILDING			Facility ID	07-000-774528		
	3201C Wilbur Ave, Antioch 94509						Status	Submitted on 2/13/2024 2:13 PM		
DOT Code/Fire Haz. Class	Common Name	Unit	Quantities			Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only)		
			Max. Daily	Largest Cont.	Avg. Daily			Component Name	% Wt	EHS CAS No.
	SODIUM HYPOCHLORITE 12.5%	Gallons	325	325	100		- Health Skin	SODIUM HYPOCHLORITE	13%	7681-52-9
	CAS No	State	Storage Container		Pressue	Waste Code	Corrosion	SODIUM HYDROXIDE	5%	1310-73-2
		Liquid	Tote Bin		Ambient		Irritation			
	Map: 2 Grid: C4	Type			Temperature		- Health Serious			
		Mixture	Days on Site: 365		Ambient		Eye Damage Eye Irritation			
	RO-505	Gallons	350	350	190		- Health Acute	2-Propenoic acid, homopolymer	14%	9003-01-4
	CAS No	State	Storage Container		Pressue	Waste Code	Toxicity	Polyoxalkylenes, C4-6,	20%	68918-96-7
		Liquid	Tote Bin		Ambient		- Health Skin	propoxylated		
	Map: 2 Grid: C4	Type			Temperature		Corrosion	2 Propenoic acid, telomer	8%	97953-25-8
		Mixture	Days on Site: 365		Ambient		Irritation			
							- Health Serious			
							Eye Damage Eye Irritation			
DOT: 8 - Corrosives (Liquids and Solids)							- Health			
							Aspiration Hazard			
	SODIUM BISULFITE 35% - 40%, BWT-104	Gallons	350	350	200		- Health Acute	SODIUM BISULFITE		7631-90-5
	CAS No	State	Storage Container		Pressue	Waste Code	Toxicity			
Corrosive, Highly Toxic		Liquid	Tote Bin		Ambient		- Health Skin			
	Map: 2 Grid: C4	Type			Temperature		Corrosion			
		Mixture	Days on Site: 365		Ambient		Irritation			
							- Health Serious			
							Eye Damage Eye Irritation			

Marsh Landing Generating Station

Annual Compliance Report

3.3 HAZ-8

The site specific security plan has been reviewed and updated and is available on site for viewing.

- 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 current hazardous material transport vendor certifications for security plans and an employee background investigations certification statement.

Marsh Landing Generating Station

Annual Compliance Report

3.4 SOIL & WATER-5

- See attached Quarterly Industrial User Compliance Reports to DDSD.



RECEIVED BY
DELTA DIABLO

APR 12 2023

Industrial User Report Checklist And Certification Statement Form

Attn: Environmental Compliance Specialist	Jason Yun		
Environmental Specialist Phone	(925) 756-1913	Fax	(925) 756-1961
Industrial User Facility Name	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.

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.




Industrial User Report Checklist And Certification Statement Form

Certification Statement

Industrial User Facility Name	Marsh Landing LLC
Industrial User Facility Address	3201-C Wilbur Avenue, Antioch, CA 94509
Duly Authorized Representative Phone	925-779-6685
Indicate Period Covered by This Report	January 1-March 31, 2023

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 Moura
Date	4/12/2023



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

April 12, 2023

Mr. Jason Yun
Delta Diablo
2500 Pittsburg-Antioch Highway
Antioch, CA 94509-1373

**Subject: 2023 First Quarterly (January 1-March 31) Self-Monitoring Report
Marsh Landing LLC, Marsh Landing Generating Station,
Industrial Wastewater Discharge Permit 0311963-S**

This letter documents the transmittal of the 2023 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, 2023. This report includes monthly flow data and quarterly, semiannual, and annual analytical data required to be collected in 2023. Data are summarized in the attached tables.

Additionally, enclosed is documentation of the flow meter calibrations performed in March 2023 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

Plant Manager
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 2023 Monthly Flow Data
Table 5:	February 2023 Monthly Flow Data
Table 6:	March 2023 Monthly Flow Data

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

Table 1
Quarterly Results for Combined Wastewater (FAC Combined)

Industrial User Name	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 2023
Report Type	Quarterly

Constituent	Sample Date	Permit Limit	Result	Units
Field pH	2/9/2023	6-10	7.5	S.U.
BOD	2/9/2023	-	ND	mg/L
COD	2/9/2023	-	94	mg/L
Arsenic	2/9/2023	0.15	0.00096	mg/L
Cadmium	2/9/2023	0.1	ND	mg/L
Chromium	2/9/2023	0.5	0.0023	mg/L
Copper	2/9/2023	0.5	0.015	mg/L
Iron	2/9/2023	-	0.11	mg/L
Lead	2/9/2023	0.5	ND	mg/L
Mercury	2/9/2023	0.003	ND	mg/L
Molybdenum	2/9/2023	-	0.0015	mg/L
Nickel	2/9/2023	0.5	0.0033	mg/L
Selenium	2/9/2023	0.25	0.00019 J	mg/L
Silver	2/9/2023	0.2	ND	mg/L
Zinc	2/9/2023	1.0	0.060	mg/L
TDS	2/9/2023	-	262	mg/L
TSS	2/9/2023	-	8.34	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.

Table 2
Semiannual Results for Combined Wastewater (FAC Combined)

Industrial User Name	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 2023
Report Type	Semiannual

Constituent	Sample Date	Permit Limit	Result	Units
Cyanide	2/9/2023	0.20	ND	mg/L
Total Phenolics (EPA 420.4)	2/9/2023	1.0	ND	mg/L
Ammonia as N	2/9/2023	200	8.4	mg/L
Oil and Grease Animal/Vegetable (HEM)	2/9/2023	300	12	mg/L
Oil and Grease Petroleum/Mineral (SGT-HEM)	2/9/2023	100	6.0	mg/L
ORGANICS (EPA 624.1, 625.1, 608.3)	2/9/2023			
<i>Butylbenzyl Phthalate</i>	2/9/2023		0.000019 JB	
<i>Bromodichloromethane</i>	2/9/2023	-	0.0023	mg/L
<i>Bromoform</i>	2/9/2023	-	0.0015	mg/L
<i>Chloroform</i>	2/9/2023	-	0.0015	mg/L
<i>Dibromochloromethane</i>	2/9/2023	-	0.0032	mg/L
<i>Di-n-butyl Phthalate</i>	2/9/2023	-	0.000024 J	mg/L
TOTAL TOXIC ORGANICS	2/9/2023	2.0	0.0085	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.

B = Analyte detected in the associated Method Blank at a concentration greater than 1/10 the reported sample result.

Table 3
Annual Results for Combined Wastewater (FAC Combined)

Industrial User Name	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 2023
Report Type	Annual

Constituent	Sample Date	Permit Limit	Result	Units
Sulfide	2/9/2023	-	ND	mg/L
Sulfate	2/9/2023	-	51	mg/L

J = The reported concentration is an estimated value.

mg/L = Milligrams per Liter

ND = Not detected at or above the indicated MDL or RL.

Table 4
Monthly Flow Data

Industrial User Name	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, 2023
Report Type	Quarterly
Constituent	Flow
Sample Type	Continuous, measured by flow meter
Sample Date	1/1/2023 - 1/31/2023
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	28,080	19.65	
2	6,427	19.88	
3	10,643	19.65	
4	6,250	19.72	
5	20,764	28.27	1
6	0	0.00	
7	0	0.00	
8	9,384	19.65	
9	8,830	19.69	
10	13,956	20.11	
11	19,462	19.73	
12	24,786	19.67	
13	0	0.00	
14	13,325	19.68	
15	7,489	19.65	
16	25,492	20.25	
17	15,895	19.71	
18	7,265	20.05	
19	4,564	19.65	
20	4,933	19.85	
21	6,068	20.68	
22	0	0.00	
23	4,743	19.76	
24	6,631	19.74	
25	0	0.00	
26	0	0.00	
27	3,812	19.95	
28	5,342	20.93	
29	0	0.00	
30	14,902	19.70	
31	19,461	19.66	

Total Monthly Flow (gal)	288,502	Did flow exceed limits?	NO
Daily Max Flow (gpd)	28,080	Flow above daily max (30,240 gpd)?	NO
Average Monthly Flow (gpd)	9,307		

Table 5
Monthly Flow Data

Industrial User Name	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, 2023
Report Type	Quarterly
Constituent	Flow
Sample Type	Continuous, measured by flow meter
Sample Date	2/1/2023 - 2/28/2023
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	635	17.80	
2	0	0.00	
3	0	0.00	
4	0	0.00	
5	0	0.00	
6	0	0.00	
7	0	0.00	
8	15,846	19.98	
9	17,022	19.72	
10	0	0.00	
11	0	0.00	
12	0	0.00	
13	461	17.08	
14	0	0.00	
15	0	0.00	
16	14,157	25.75	9
17	4,935	19.67	
18	5,618	19.60	
19	0	0.00	
20	5,244	19.80	
21*	5,980	19.60	
22*	357	17.17	
23	4,623	19.70	
24	13,182	20.23	
25	6,496	19.69	
26	0	0.00	
27	3,903	19.70	
28	10,105	19.60	

Total Monthly Flow (gal)	108,565	Did flow exceed limits?	NO
Daily Max Flow (gpd)	17,022	Flow above daily max (30,240 gpd)?	NO
Average Monthly Flow (gpd)	3,877		

Table 6
Monthly Flow Data

Industrial User Name	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, 2023
Report Type	Quarterly
Constituent	Flow
Sample Type	Continuous, measured by flow meter
Sample Date	3/1/2023 - 3/31/2023
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	452	17.25	
2	0	0.00	
3	8,471	20.82	
4	0	0.00	
5	0	0.00	
6	0	0.00	
7	495	17.28	
8	5,595	19.84	
9	6,039	19.77	
10	11,275	19.66	
11	18,302	19.62	
12	0	0.00	
13	4,508	20.81	
14	12,806	19.76	
15	10,875	19.65	
16	24,863	19.60	
17	0	0.00	
18	0	0.00	
19	485	17.35	
20	0	0.00	
21	0	0.00	
22	465	15.48	
23	9,029	21.69	
24	4,745	19.76	
25	10,606	19.65	
26	0	0.00	
27	0	0.00	
28	0	0.00	
29	6,215	21.08	
30	0	0.00	
31	13,876	19.76	

Total Monthly Flow (gal)	149,100	Did flow exceed limits?	NO
Daily Max Flow (gpd)	24,863	Flow above daily max (30,240 gpd)?	NO
Average Monthly Flow (gpd)	4,810		

Marsh Landing Generating Station

Reported to:
Environmental Engineer

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)	pH
Method:								SM 4500-H+B
Unit:								standard
Reporting Limit:								0.18
Method Detection Limit:								0.06
FAC Combined Waste Water	ML-23-034	2/9/23	13:30	2/9/23	13:30	Wastewater	Grab	7.5

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

Environmental Engineer David Frandsen

Signature:

David Frandsen

Date:

Feb. 14, 2023

Sampling Technologist: James E Robinson

Signature:

James E Robinson

Date:

9-Feb-23



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 2302670

Report Created for: NRG Energy, LLC

3201 Wilbur Avenue
Antioch, CA 94509

Project Contact: David Frandsen

Project P.O.: 4501914176

Project: Marsh Landing DDSD Quarterly

Project Received: 02/09/2023

Analytical Report reviewed & approved for release on 02/21/2023 by:

Christine Askari
Project Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in a case narrative.





Glossary of Terms & Qualifier Definitions

Client: NRG Energy, LLC

WorkOrder: 2302670

Project: Marsh Landing DDSD Quarterly

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
CPT	Consumer Product Testing not NELAP Accredited
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
LQL	Lowest Quantitation Level
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	MDL is the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results. Definition and Procedure for the Determination of the Method Detection Limit, Revision 2, 40CFR, Part 136, Appendix B, EPA 821-R-16-006, December 2016.
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
NA	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 is the lowest level that can be reliably determined within specified limits of precision and accuracy during routine laboratory operating conditions. (The RL cannot be lower than the lowest calibration standard used in the initial calibration of the instrument and must be greater than the MDL.)
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
TZA	TimeZone Net Adjustment for sample collected outside of MAI's UTC.
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



Glossary of Terms & Qualifier Definitions

Client: NRG Energy, LLC

WorkOrder: 2302670

Project: Marsh Landing DDSD Quarterly

Analytical Qualifiers

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

Quality Control Qualifiers

F1 MS/MSD recovery and/or RPD is out of acceptance criteria; LCS validates the prep batch.



Analytical Report

Client: NRG Energy, LLC
Date Received: 02/09/2023 16:32
Date Prepared: 02/10/2023
Project: Marsh Landing DDS Quarterly

WorkOrder: 2302670
Extraction Method: SM5210B
Analytical Method: SM5210 B
Unit: mg/L

Biochemical Oxygen Demand (BOD)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2302670-001B	Water	02/09/2023 13:30	WetChem	263525

Analytes	Result	MDL	RL	DF	Date Analyzed
BOD	ND	120	120	30	02/15/2023 14:06

Analyst(s): MGO



Analytical Report

Client: NRG Energy, LLC
Date Received: 02/09/2023 16:32
Date Prepared: 02/10/2023
Project: Marsh Landing DDSQ Quarterly

WorkOrder: 2302670
Extraction Method: SM5220 D-1997
Analytical Method: SM5220 D-1997
Unit: mg/L

Chemical Oxygen Demand (COD) as mg O₂ /L

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2302670-001A	Water	02/09/2023 13:30	SPECTROPHOTOMETER2	263551

Analytes	Result	MDL	RL	DF	Date Analyzed
COD	94	9.5	10	1	02/10/2023 18:59

Analyst(s): IGC



Analytical Report

Client: NRG Energy, LLC
Date Received: 02/09/2023 16:32
Date Prepared: 02/09/2023
Project: Marsh Landing DDSO Quarterly

WorkOrder: 2302670
Extraction Method: E200.8
Analytical Method: E200.8
Unit: mg/L

Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2302670-001E	Water	02/09/2023 13:30	ICP-MS4 212SMPL.d	263453

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
Arsenic	0.00096		0.000074	0.00050	1	02/10/2023 17:16
Cadmium	ND		0.000043	0.00050	1	02/10/2023 17:16
Chromium	0.0023		0.00028	0.00050	1	02/10/2023 17:16
Copper	0.015		0.00075	0.0015	1	02/10/2023 17:16
Iron	0.11		0.026	0.050	1	02/10/2023 17:16
Lead	ND		0.00019	0.00050	1	02/10/2023 17:16
Mercury	ND		0.000033	0.000050	1	02/10/2023 17:16
Molybdenum	0.0015		0.00013	0.00050	1	02/10/2023 17:16
Nickel	0.0033		0.00033	0.00050	1	02/10/2023 17:16
Selenium	0.00019	J	0.00016	0.00050	1	02/10/2023 17:16
Silver	ND		0.000092	0.00050	1	02/10/2023 17:16
Zinc	0.060		0.014	0.020	1	02/10/2023 17:16

Surrogates	REC (%)	Limits	
Terbium	112	70-130	02/10/2023 17:16

Analyst(s): MIG



Analytical Report

Client: NRG Energy, LLC
Date Received: 02/09/2023 16:32
Date Prepared: 02/13/2023
Project: Marsh Landing DDSQ Quarterly

WorkOrder: 2302670
Extraction Method: SM2540 C-1997
Analytical Method: SM2540 C-1997
Unit: mg/L

Total Dissolved Solids

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2302670-001C	Water	02/09/2023 13:30	WetChem	263648

Analytes	Result	MDL	RL	DF	Date Analyzed
Total Dissolved Solids	262	10.0	10.0	1	02/14/2023 13:40

Analyst(s): JME



Analytical Report

Client: NRG Energy, LLC
Date Received: 02/09/2023 16:32
Date Prepared: 02/15/2023
Project: Marsh Landing DDSQ Quarterly

WorkOrder: 2302670
Extraction Method: SM2540 D-1997
Analytical Method: SM2540 D-1997
Unit: mg/L

Total Suspended Solids

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2302670-001D	Water	02/09/2023 13:30	WetChem	263820

Analytes	Result	MDL	RL	DF	Date Analyzed
Total Suspended Solids	8.34	1.67	1.67	1.667	02/15/2023 15:50

Analyst(s): JME



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 02/10/2023
Date Analyzed: 02/15/2023
Instrument: WetChem
Matrix: Water
Project: Marsh Landing DDSD Quarterly

WorkOrder: 2302670
BatchID: 263525
Extraction Method: SM5210B
Analytical Method: SM5210 B
Unit: mg/L
Sample ID: MB-263525

QC Summary Report for BOD

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



Quality Control Report

Client: NRG Energy, LLC

Date Prepared: 02/10/2023

Date Analyzed: 02/10/2023

Instrument: SPECTROPHOTOMETER2

Matrix: Water

Project: Marsh Landing DDSD Quarterly

WorkOrder: 2302670

BatchID: 263551

Extraction Method: SM5220 D-1997

Analytical Method: SM5220 D-1997

Unit: mg/L

Sample ID: MB/LCS/LCSD-263551
2302670-001AMS/MSD

QC Summary Report for COD

Analyte	MB Result	MDL	RL			
COD	ND	9.5	10	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
COD	100	96	100	100	96	90-110	4.08	20

Analyte	MS DF	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
COD	1	160	160	100	94.00	70,F1	70,F1	80-120	0	20



Quality Control Report

Client: NRG Energy, LLC

Date Prepared: 02/09/2023

Date Analyzed: 02/10/2023

Instrument: ICP-MS4

Matrix: Water

Project: Marsh Landing DDSD Quarterly

WorkOrder: 2302670

BatchID: 263453

Extraction Method: E200.8

Analytical Method: E200.8

Unit: µg/L

Sample ID: MB/LCS/LCSD-263453

QC Summary Report for Metals

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Arsenic	ND	0.074	0.50	-	-	-
Cadmium	ND	0.043	0.50	-	-	-
Chromium	ND	0.28	0.50	-	-	-
Copper	ND	0.75	1.5	-	-	-
Iron	ND	26	50	-	-	-
Lead	ND	0.19	0.50	-	-	-
Mercury	ND	0.033	0.050	-	-	-
Molybdenum	ND	0.13	0.50	-	-	-
Nickel	ND	0.33	0.50	-	-	-
Selenium	ND	0.16	0.50	-	-	-
Silver	ND	0.092	0.50	-	-	-
Zinc	ND	14	20	-	-	-

Surrogate Recovery

Terbium	530	500	106	70-130
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Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Arsenic	51	51	50	101	102	85-115	1.27	20
Cadmium	54	54	50	108	109	85-115	0.671	20
Chromium	55	55	50	109	110	85-115	1.14	20
Copper	55	55	50	110	109	85-115	0.245	20
Iron	5200	5400	5000	103	108	85-115	4.08	20
Lead	53	53	50	106	106	85-115	0.562	20
Mercury	1.3	1.3	1.25	101	101	85-115	0.159	20
Molybdenum	53	54	50	105	107	85-115	2.02	20
Nickel	55	54	50	109	109	85-115	0.205	20
Selenium	54	54	50	108	108	85-115	0.154	20
Silver	52	53	50	104	106	85-115	1.24	20
Zinc	540	550	500	109	109	85-115	0.540	20

Surrogate Recovery

Terbium	530	530	500	107	106	70-130	0.949	20
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Quality Control Report

Client: NRG Energy, LLC

Date Prepared: 02/13/2023

Date Analyzed: 02/14/2023

Instrument: WetChem

Matrix: Water

Project: Marsh Landing DDSQ Quarterly

WorkOrder: 2302670

BatchID: 263648

Extraction Method: SM2540 C-1997

Analytical Method: SM2540 C-1997

Unit: mg/L

Sample ID: MB/LCS/LCSD-263648

QC Summary Report for Total Dissolved Solids

Analyte	MB Result	MDL	RL			
Total Dissolved Solids	ND	10.0	10.0	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Total Dissolved Solids	938	942	1000	94	94	80-120	0.426	10



Quality Control Report

Client: NRG Energy, LLC

Date Prepared: 02/15/2023

Date Analyzed: 02/15/2023

Instrument: WetChem

Matrix: Water

Project: Marsh Landing DDSQ Quarterly

WorkOrder: 2302670

BatchID: 263820

Extraction Method: SM2540 D-1997

Analytical Method: SM2540 D-1997

Unit: mg/L

Sample ID: MB/LCS/LCSD-263820

QC Summary Report for Total Suspended Solids

Analyte	MB Result	MDL	RL			
Total Suspended Solids	ND	1.00	1.00	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Total Suspended Solids	97.0	93.0	100	97	93	80-120	4.21	10



CHAIN-OF-CUSTODY RECORD

WorkOrder: 2302670

ClientCode: GOA

QuoteID: 212372

☐ WaterTrax☐ CLIP☐ EDF☐ EQuIS☐ Dry-Weight☒ Email☐ HardCopy☐ ThirdParty☒ J-flag☐ Detection Summary☐ Excel

Report to:

David Frandsen
NRG Energy, LLC
3201 Wilbur Avenue
Antioch, CA 94509
(925) 427-3479 FAX: (925) 779-6679Email: David.Frandsen@nrg.com
cc/3rd Party: joe.moura@nrg.com; james.robinson@nrg.
PO: 4501914176
Project: Marsh Landing DDSD Quarterly

Bill to:

Accounts Payable
NRG
4900 N. Scottsdale Road, Ste. 5000
Scottsdale, AZ 85251
invoices@clearwayenergy.coupahost.coRequested TATs: 5 days;
7 days;

Date Received: 02/09/2023

Date Logged: 02/09/2023

Lab ID	ClientSampleID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
2302670-001	FAC Combined Wastewater	Water	2/9/2023 13:30	<input type="checkbox"/>	B	A	E	A	C	D						

Test Legend:

1	BOD_W
5	TDS_W
9	

2	COD_W
6	TSS_W
10	

3	METALSMS_TTLC_W(PPM)
7	
11	

4	PRDisposal Fee
8	
12	

Project Manager: Susan Thompson

Prepared by: Adrianna Cardoza

Comments: Use QUOTE 212372 for any Marsh Landing projects to get correct analyte list. Always report in mg/L.

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



McC Campbell 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.mcccampbell.com / E-mail: main@mcccampbell.com

WORK ORDER SUMMARY

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

Project: Marsh Landing DDSD Quarterly

Work Order: 2302670

QC Level: LEVEL 2

Date Logged: 2/9/2023

Comments: Use QUOTE 212372 for any Marsh Landing projects to get correct analyte list. Always report in mg/L.

☐ WaterTrax ☐ CLIP ☐ EDF ☐ Excel ☐ EQuIS ☒ Email ☐ HardCopy ☐ ThirdParty ☒ J-flag

LabID	ClientSampID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	U**	Head Space	Dry-Weight	Collection Date & Time	TAT	Test Due Date	Sediment Content	Hold	Sub Out
001A	FAC Combined Wastewater	Water	SM5220D (COD)	2	aVOA w/ H2SO4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2/9/2023 13:30	5 days	2/16/2023	Present	<input type="checkbox"/>	<input type="checkbox"/>
001B	FAC Combined Wastewater	Water	SM5210B (BOD)	1	500mL HDPE, unprsv.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2/9/2023 13:30	7 days	2/21/2023	Present	<input type="checkbox"/>	<input type="checkbox"/>
001C	FAC Combined Wastewater	Water	SM2540C (TDS)	1	500mL HDPE, unprsv.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2/9/2023 13:30	5 days	2/16/2023	Present	<input type="checkbox"/>	<input type="checkbox"/>
001D	FAC Combined Wastewater	Water	SM2540D (TSS)	1	1L HDPE, unprsv.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2/9/2023 13:30	5 days	2/16/2023	Present	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2/9/2023 13:30	5 days	2/16/2023	Present	<input type="checkbox"/>	<input type="checkbox"/>

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).

- Organic extracts are held for 40 days before disposal; Inorganic extract are held for 30 days.

- 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.


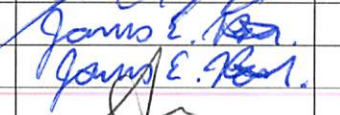
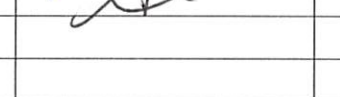


U** = An unpreserved container was received for a method that suggests a preservation in order to extend hold time for analysis.

2302670

Chain of Custody

Page 1 of 2-Quarterly

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				ANALYSIS REQUEST				
Laboratory: McC Campbell Analytical, Inc. ELAP Cert. No. 1644 Address: 1534 Willow Pass Road, Pittsburg, CA 94565-1701 Phone/Fax: 925.252.9262/ 925.252.9269							Company: Marsh Landing LLC Attention: Accounts Payable Address: invoices@clearwaterenergy.com P.O. No.: 4501914176		Plant: Marsh Landing Title: DDSD Phase: Quarterly Manager: David Frandsen				COD (SM 5220D)	BOD (SM 5210B)	TDS (SM 2540B)	TSS (SM 2540D)	
Sample Number	Sample Date	Sample Collection Time	Regulatory Driver	Regulatory Frequency	Sample Medium	Sample Type	Sample Description	Number	Type	Volume (each, mL)	Preserv.						
ML-23-017	9-Feb-23	13:30	DDSD	Quarterly	Wastewater	C-24	FAC Combined Wastewater	2	Amber VOAs	43	H ₂ SO ₄ (pH<2, 4°C)	X					
ML-23-018	9-Feb-23	13:30	DDSD	Quarterly	Wastewater	C-24	FAC Combined Wastewater	1	HDPE Bottle	1,000	None (ZHS, 4°C)		X				
ML-23-019	9-Feb-23	13:30	DDSD	Quarterly	Wastewater	C-24	FAC Combined Wastewater	1	HDPE Bottle	500	None (4°C)			X			
ML-23-020	9-Feb-23	13:30	DDSD	Quarterly	Wastewater	C-24	FAC Combined Wastewater	1	Poly	1,000	None				X		
REPORTING Original to: David Frandsen Title: Environmental Specialist/Engineer Address: P.O. Box 1687 Antioch, CA 94509 Phone/Fax: 925.324-3533/6509 E-mail: david.frandsen@nrg.com E-mail CC: james.robinson@nrg.com joe.moura@nrg.com												LABORATORY NOTES RE: SAMPLE RECEIPT/CONDITION 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. Please report all results with the units of mg/L. RESULTS AND PRICING PER QUOTE ID: 212372. *Include sample description with client sample number ID.				DIRECTIONS FOR LABORATORY HOLDING TIME: 28 days 48 hours 7 days 7 days	
PRINTED NAME		SIGNATURE		COMPANY		DATE		TIME									
Sampled by: Ryan Robinson.				NRG Energy Services		9-Feb-23		13:30									
Relinquished by: Ryan Robinson.				NRG Energy Services		9-Feb-23		1440									
Received by: James E. Robinson				NRG		9-Feb-23		1440									
Relinquished by: James E. Robinson				NRG		9-Feb-23		1632									
Received by: Adrianna Cakiza						2-9-23		1632									
Relinquished by:																	
Received by:																	

4.06

2302670


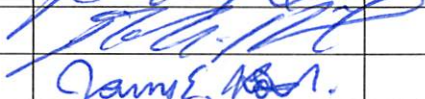
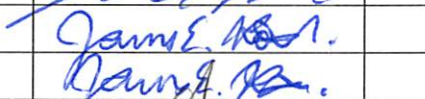
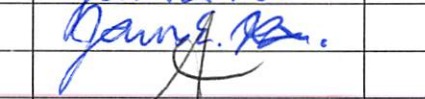
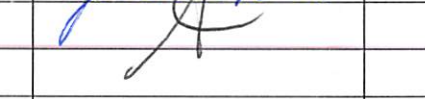
Chain of Custody

Page 2 of 2-Quarterly

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				ANALYSIS REQUEST			
Laboratory: McC Campbell Analytical, Inc. ELAP Cert. No.: 1644 Address: 1534 Willow Pass Road, Pittsburg, CA 94565-1701 Phone/Fax: 925.252.9262/ 925.252.9269				Company: Marsh Landing LLC Attention: Accounts Payable Address: invoices@clearwaterenergy.com P.O. No.: 4501914176				Plant: Marsh Landing Title: DDSD Phase: Quarterly Manager: David Frandsen				Total Metals¹ (EPA Method 200.8)			
SAMPLE INFORMATION								CONTAINER INFORMATION							
Sample Number	Sample Date	Sample Collection Time	Regulatory Driver	Regulatory Frequency	Sample Medium	Sample Type	Sample Description	Number	Type	Volume (each, mL)	Preserv.				
ML-23-021	9-Feb-23	13:30	DDSD	Quarterly	Wastewater	C-24	FAC Combined Wastewater	1	HDPE Bottle	250	HNO3 (pH<2)	X			
HOLDING TIME: 28 days															
REPORTING Original to: David Frandsen Title: Environmental Specialist/Engineer Address: P.O. Box 1687 Antioch, CA 94509 Phone/Fax: 925.324-3533/6509 E-mail: david.frandsen@nrg.com E-mail CC: james.robinson@nrg.com joe.moura@nrg.com				LABORATORY NOTES RE: SAMPLE RECEIPT/CONDITION				DIRECTIONS FOR LABORATORY 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. Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Mercury, Nickel, Molybdenum, Selenium (reaction mode), Silver, Zinc Please report all results with the units of mg/L. RESULTS AND PRICING PER QUOTE ID: 212372. *Include							
PRINTED NAME				SIGNATURE				COMPANY				DATE			
Sampled by: Ryan Robinson.								NRG Energy Services				9-Feb-23			
Relinquished by: Ryan Robinson.								NRG Energy Services				9-Feb-23			
Received by: James E. Robinson.								McC Campbell Analytical, Inc. NRG				9-Feb-23			
Relinquished by: James E. Robinson.								NRG				9-Feb-23			
Received by: Adrianna Carlson												2-9-22			
Relinquished by:															
Received by:															



Sample Receipt Checklist

Client Name: NRG Energy, LLC
Project: Marsh Landing DDSD Quarterly

Date and Time Received: 2/9/2023 16:32
Date Logged: 2/9/2023
Received by: Adrianna Cardoza
Logged by: Adrianna Cardoza

WorkOrder №: 2302670 Matrix: Water
Carrier: Client Drop-In

Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sampler's name noted on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
COC agrees with Quote?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: WET ICE)

Sample/Temp Blank temperature	Temp: 4°C	NA <input type="checkbox"/>
ZHS conditional analyses: VOA meets zero headspace requirement (VOCs, TPHg/BTEX, RSK)?	Yes <input type="checkbox"/> No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
pH acceptable upon receipt (Metal: <2; Nitrate 353.2/4500NO ₃ : <2; 522: <4; 218.7: >8)?	Yes <input type="checkbox"/> No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

UCMR Samples:

pH tested and acceptable upon receipt (200.7: ≤2; 533: 6 - 8; 537.1: 6 - 8)?	Yes <input type="checkbox"/> No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Free Chlorine tested and acceptable upon receipt (<0.1mg/L) [not applicable to 200.7]?	Yes <input type="checkbox"/> No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

Comments:



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 2302671

Report Created for: NRG Energy, LLC

3201 Wilbur Avenue
Antioch, CA 94509

Project Contact: David Frandsen

Project P.O.: 4501914176

Project: Marsh Landing DDSD Semi-Annual

Project Received: 02/09/2023

Analytical Report reviewed & approved for release on 02/21/2023 by:

Jena Alfaro
Project Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in a case narrative.





Glossary of Terms & Qualifier Definitions

Client: NRG Energy, LLC

WorkOrder: 2302671

Project: Marsh Landing DDSD Semi-Annual

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
CPT	Consumer Product Testing not NELAP Accredited
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
LQL	Lowest Quantitation Level
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	MDL is the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results. Definition and Procedure for the Determination of the Method Detection Limit, Revision 2, 40CFR, Part 136, Appendix B, EPA 821-R-16-006, December 2016.
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
NA	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 is the lowest level that can be reliably determined within specified limits of precision and accuracy during routine laboratory operating conditions. (The RL cannot be lower than the lowest calibration standard used in the initial calibration of the instrument and must be greater than the MDL.)
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
TZA	TimeZone Net Adjustment for sample collected outside of MAI's UTC.
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



Glossary of Terms & Qualifier Definitions

Client: NRG Energy, LLC

WorkOrder: 2302671

Project: Marsh Landing DDSD Semi-Annual

Analytical Qualifiers

- B Analyte detected in the associated Method Blank at a concentration greater than 1/10 the reported sample result.
- J Result is less than the RL/ML but greater than the MDL. The reported concentration is an estimated value.

Quality Control Qualifiers

- F2 LCS/LCSD recovery and/or RPD/RSD is out of acceptance criteria.
- F5 LCS/LCSD recovery is outside of acceptance limits; however, the data is acceptable based upon the TNI allowable marginal exceedances.



Analytical Report

Client: NRG Energy, LLC
Date Received: 02/09/2023 16:32
Date Prepared: 02/17/2023
Project: Marsh Landing DDS Semi-Annual

WorkOrder: 2302671
Extraction Method: E1664A_SG
Analytical Method: E1664A
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	2302671-001B	Water	02/09/2023 13:30	O&G	264074

Analytes	Result	MDL	RL	DF	Date Analyzed
SGT-HEM	6.0	1.5	4.8	1	02/21/2023 14:55

Analyst(s): HN



Analytical Report

Client: NRG Energy, LLC
Date Received: 02/09/2023 16:32
Date Prepared: 02/15/2023
Project: Marsh Landing DDS Semi-Annual

WorkOrder: 2302671
Extraction Method: E1664A
Analytical Method: E1664A
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	2302671-001A	Water	02/09/2023 13:30	O&G	263877

Analytes	Result	MDL	RL	DF	Date Analyzed
HEM	12	0.95	5.2	1	02/16/2023 16:50

Analyst(s): HN



Analytical Report

Client: NRG Energy, LLC
Date Received: 02/09/2023 16:32
Date Prepared: 02/09/2023
Project: Marsh Landing DDSD Semi-Annual

WorkOrder: 2302671
Extraction Method: E608.3/SW3620B
Analytical Method: E608.3
Unit: mg/L

Organochlorine Pesticides + PCBs w/ Florisil Clean-up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2302671-001F	Water	02/09/2023 13:30	GC40 02142308.d	263490

Analytes	Result	MDL	RL	DF	Date Analyzed
Aldrin	ND	0.000000	0.0000010	1	02/14/2023 09:15
a-BHC	ND	0.000000	0.0000010	1	02/14/2023 09:15
b-BHC	ND	0.000000	0.0000010	1	02/14/2023 09:15
d-BHC	ND	0.000000	0.0000010	1	02/14/2023 09:15
g-BHC	ND	0.000000	0.0000010	1	02/14/2023 09:15
Chlordane (Technical)	ND	0.000002	0.000020	1	02/14/2023 09:15
p,p-DDD	ND	0.000000	0.0000010	1	02/14/2023 09:15
p,p-DDE	ND	0.000000	0.0000010	1	02/14/2023 09:15
p,p-DDT	ND	0.000000	0.0000010	1	02/14/2023 09:15
Dieldrin	ND	0.000000	0.0000010	1	02/14/2023 09:15
Endosulfan I	ND	0.000000	0.0000010	1	02/14/2023 09:15
Endosulfan II	ND	0.000000	0.0000010	1	02/14/2023 09:15
Endosulfan sulfate	ND	0.000000	0.0000020	1	02/14/2023 09:15
Endrin	ND	0.000000	0.0000010	1	02/14/2023 09:15
Endrin aldehyde	ND	0.000000	0.0000010	1	02/14/2023 09:15
Heptachlor	ND	0.000000	0.0000010	1	02/14/2023 09:15
Heptachlor epoxide	ND	0.000000	0.0000010	1	02/14/2023 09:15
Toxaphene	ND	0.000002	0.000020	1	02/14/2023 09:15
Aroclor1016	ND	0.000001	0.000020	1	02/14/2023 09:15
Aroclor1221	ND	0.000002	0.000020	1	02/14/2023 09:15
Aroclor1232	ND	0.000003	0.000020	1	02/14/2023 09:15
Aroclor1242	ND	0.000002	0.000020	1	02/14/2023 09:15
Aroclor1248	ND	0.000001	0.000020	1	02/14/2023 09:15
Aroclor1254	ND	0.000001	0.000020	1	02/14/2023 09:15
Aroclor1260	ND	0.000002	0.000020	1	02/14/2023 09:15

Surrogates	REC (%)	Limits	
Decachlorobiphenyl	121	60-130	02/14/2023 09:15

Analyst(s): CN



Analytical Report

Client: NRG Energy, LLC
Date Received: 02/09/2023 16:32
Date Prepared: 02/11/2023
Project: Marsh Landing DDSD Semi-Annual

WorkOrder: 2302671
Extraction Method: E624.1
Analytical Method: E624.1
Unit: mg/L

Acrolein, Acrylonitrile, & 2-Chloroethyl Vinyl Ether

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2302671-001H	Water	02/09/2023 13:30	GC10 02102328.D	263590

Analytes	Result	MDL	RL	DF	Date Analyzed
Acrolein (Propenal)	ND	0.0039	0.0050	1	02/11/2023 07:30
Acrylonitrile	ND	0.00023	0.0020	1	02/11/2023 07:30
2-Chloroethyl Vinyl Ether	ND	0.00044	0.0010	1	02/11/2023 07:30

Surrogates	REC (%)	Limits
Dibromofluoromethane	101	70-130

Analyst(s): LT



Analytical Report

Client: NRG Energy, LLC
Date Received: 02/09/2023 16:32
Date Prepared: 02/16/2023
Project: Marsh Landing DDSD Semi-Annual

WorkOrder: 2302671
Extraction Method: E624.1
Analytical Method: E624.1
Unit: mg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2302671-001G	Water	02/09/2023 13:30	GC38 02152331.D	263879

Analytes	Result	MDL	RL	DF	Date Analyzed
Benzene	ND	0.000034	0.00020	1	02/16/2023 02:42
Bromodichloromethane	0.0023	0.000022	0.000050	1	02/16/2023 02:42
Bromoform	0.0015	0.00010	0.00050	1	02/16/2023 02:42
Bromomethane	ND	0.00026	0.00050	1	02/16/2023 02:42
Carbon tetrachloride	ND	0.000033	0.000050	1	02/16/2023 02:42
Chlorobenzene	ND	0.000092	0.00050	1	02/16/2023 02:42
Chloroethane	ND	0.00023	0.00050	1	02/16/2023 02:42
Chloroform	0.0015	0.000015	0.00010	1	02/16/2023 02:42
Chloromethane	ND	0.00018	0.00050	1	02/16/2023 02:42
Dibromochloromethane	0.0032	0.000069	0.00015	1	02/16/2023 02:42
1,2-Dichlorobenzene	ND	0.00011	0.00050	1	02/16/2023 02:42
1,3-Dichlorobenzene	ND	0.00012	0.00050	1	02/16/2023 02:42
1,4-Dichlorobenzene	ND	0.00011	0.00050	1	02/16/2023 02:42
1,1-Dichloroethane	ND	0.00014	0.00050	1	02/16/2023 02:42
1,2-Dichloroethane (1,2-DCA)	ND	0.000011	0.000020	1	02/16/2023 02:42
1,1-Dichloroethene	ND	0.000003	0.000010	1	02/16/2023 02:42
trans-1,2-Dichloroethene	ND	0.00012	0.00050	1	02/16/2023 02:42
1,2-Dichloropropane	ND	0.000029	0.00020	1	02/16/2023 02:42
cis-1,3-Dichloropropene	ND	0.00013	0.00050	1	02/16/2023 02:42
trans-1,3-Dichloropropene	ND	0.00020	0.00050	1	02/16/2023 02:42
Ethylbenzene	ND	0.00014	0.00050	1	02/16/2023 02:42
Methylene chloride	ND	0.00075	0.0020	1	02/16/2023 02:42
1,1,2,2-Tetrachloroethane	ND	0.000018	0.000020	1	02/16/2023 02:42
Tetrachloroethene	ND	0.000028	0.00020	1	02/16/2023 02:42
Toluene	ND	0.000096	0.00050	1	02/16/2023 02:42
1,1,1-Trichloroethane	ND	0.00014	0.00050	1	02/16/2023 02:42
1,1,2-Trichloroethane	ND	0.000026	0.00020	1	02/16/2023 02:42
Trichloroethene	ND	0.000030	0.00050	1	02/16/2023 02:42
Trichlorofluoromethane	ND	0.00013	0.00050	1	02/16/2023 02:42
Vinyl chloride	ND	0.000002	0.0000050	1	02/16/2023 02:42

Surrogates	REC (%)	Limits	Date Analyzed
Dibromofluoromethane	120	70-130	02/16/2023 02:42
Toluene-d8	122	70-130	02/16/2023 02:42
4-BFB	96	70-130	02/16/2023 02:42

Analyst(s): TW



Analytical Report

Client: NRG Energy, LLC
Date Received: 02/09/2023 16:32
Date Prepared: 02/09/2023
Project: Marsh Landing DDSD Semi-Annual

WorkOrder: 2302671
Extraction Method: E625.1
Analytical Method: E625.1
Unit: mg/L

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected			Instrument	Batch ID
FAC Combined Wastewater	2302671-0011	Water	02/09/2023 13:30			GC47 02102320.D	263433
Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed	
Acenaphthene	ND		0.000002	0.0000052	1	02/10/2023 18:10	
Acenaphthylene	ND		0.000000	0.0000052	1	02/10/2023 18:10	
Anthracene	ND		0.000002	0.0000052	1	02/10/2023 18:10	
Benzidine	ND		0.0025	0.0052	1	02/10/2023 18:10	
Benzo (a) anthracene	ND		0.000012	0.000052	1	02/10/2023 18:10	
Benzo (a) pyrene	ND		0.000003	0.0000052	1	02/10/2023 18:10	
Benzo (b) fluoranthene	ND		0.000005	0.000021	1	02/10/2023 18:10	
Benzo (g,h,i) perylene	ND		0.000005	0.000021	1	02/10/2023 18:10	
Benzo (k) fluoranthene	ND		0.000005	0.000021	1	02/10/2023 18:10	
Bis (2-chloroethoxy) Methane	ND		0.00026	0.0010	1	02/10/2023 18:10	
Bis (2-chloroethyl) Ether	ND		0.000002	0.0000052	1	02/10/2023 18:10	
Bis (2-chloroisopropyl) Ether	ND		0.000015	0.000052	1	02/10/2023 18:10	
Bis (2-ethylhexyl) Phthalate	ND		0.000046	0.00021	1	02/10/2023 18:10	
4-Bromophenyl Phenyl Ether	ND		0.00015	0.0010	1	02/10/2023 18:10	
Butylbenzyl Phthalate	0.000019	JB	0.000007	0.000052	1	02/10/2023 18:10	
4-Chloro-3-methylphenol	ND		0.00038	0.0010	1	02/10/2023 18:10	
2-Chloronaphthalene	ND		0.00023	0.0010	1	02/10/2023 18:10	
2-Chlorophenol	ND		0.000013	0.000052	1	02/10/2023 18:10	
4-Chlorophenyl Phenyl Ether	ND		0.00023	0.0010	1	02/10/2023 18:10	
Chrysene	ND		0.000002	0.0000052	1	02/10/2023 18:10	
Dibenzo (a,h) anthracene	ND		0.000005	0.000021	1	02/10/2023 18:10	
Di-n-butyl Phthalate	0.000024	J	0.000019	0.000052	1	02/10/2023 18:10	
1,2-Dichlorobenzene	ND		0.00018	0.0010	1	02/10/2023 18:10	
1,3-Dichlorobenzene	ND		0.00029	0.0010	1	02/10/2023 18:10	
1,4-Dichlorobenzene	ND		0.00029	0.0010	1	02/10/2023 18:10	
3,3-Dichlorobenzidine	ND		0.000002	0.0000052	1	02/10/2023 18:10	
2,4-Dichlorophenol	ND		0.000003	0.000010	1	02/10/2023 18:10	
Diethyl Phthalate	ND		0.000017	0.000052	1	02/10/2023 18:10	
2,4-Dimethylphenol	ND		0.00051	0.0010	1	02/10/2023 18:10	
Dimethyl Phthalate	ND		0.000005	0.000010	1	02/10/2023 18:10	
4,6-Dinitro-2-methylphenol	ND		0.0020	0.0052	1	02/10/2023 18:10	
2,4-Dinitrophenol	ND		0.00039	0.0010	1	02/10/2023 18:10	
2,4-Dinitrotoluene	ND		0.000021	0.000052	1	02/10/2023 18:10	
2,6-Dinitrotoluene	ND		0.000020	0.000052	1	02/10/2023 18:10	
Di-n-octyl Phthalate	ND		0.00079	0.0010	1	02/10/2023 18:10	
1,2-Diphenylhydrazine	ND		0.00021	0.0010	1	02/10/2023 18:10	
Fluoranthene	ND		0.000002	0.000010	1	02/10/2023 18:10	

(Cont.)



Analytical Report

Client: NRG Energy, LLC
Date Received: 02/09/2023 16:32
Date Prepared: 02/09/2023
Project: Marsh Landing DDSD Semi-Annual

WorkOrder: 2302671
Extraction Method: E625.1
Analytical Method: E625.1
Unit: mg/L

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2302671-0011	Water	02/09/2023 13:30	GC47 02102320.D	263433

Analytes	Result	Qualifiers	MDL	RL	DF	Date Analyzed
Fluorene	ND		0.000003	0.000010	1	02/10/2023 18:10
Hexachlorobenzene	ND		0.000001	0.0000052	1	02/10/2023 18:10
Hexachlorobutadiene	ND		0.000002	0.0000052	1	02/10/2023 18:10
Hexachlorocyclopentadiene	ND		0.0024	0.0052	1	02/10/2023 18:10
Hexachloroethane	ND		0.000003	0.000010	1	02/10/2023 18:10
Indeno (1,2,3-cd) pyrene	ND		0.000007	0.000021	1	02/10/2023 18:10
Isophorone	ND		0.00095	0.0021	1	02/10/2023 18:10
Naphthalene	ND		0.000012	0.000052	1	02/10/2023 18:10
Nitrobenzene	ND		0.00030	0.0010	1	02/10/2023 18:10
2-Nitrophenol	ND		0.0018	0.0052	1	02/10/2023 18:10
4-Nitrophenol	ND		0.0017	0.0052	1	02/10/2023 18:10
N-Nitrosodimethylamine	ND		0.0020	0.0052	1	02/10/2023 18:10
N-Nitrosodiphenylamine	ND		0.00024	0.0010	1	02/10/2023 18:10
N-Nitrosodi-n-propylamine	ND		0.00036	0.0010	1	02/10/2023 18:10
Pentachlorophenol	ND		0.000092	0.00026	1	02/10/2023 18:10
Phenanthrene	ND		0.000002	0.0000052	1	02/10/2023 18:10
Phenol	ND		0.000059	0.00021	1	02/10/2023 18:10
Pyrene	ND		0.000002	0.0000052	1	02/10/2023 18:10
1,2,4-Trichlorobenzene	ND		0.00020	0.0010	1	02/10/2023 18:10
2,4,6-Trichlorophenol	ND		0.000003	0.000010	1	02/10/2023 18:10

Surrogates	REC (%)	Limits	
2-Fluorophenol	50	20-103	02/10/2023 18:10
Phenol-d5	33	20-120	02/10/2023 18:10
Nitrobenzene-d5	76	61-130	02/10/2023 18:10
2-Fluorobiphenyl	75	63-115	02/10/2023 18:10
2,4,6-Tribromophenol	103	48-149	02/10/2023 18:10
4-Terphenyl-d14	58	32-113	02/10/2023 18:10

Analyst(s): KVE



Analytical Report

Client: NRG Energy, LLC
Date Received: 02/09/2023 16:32
Date Prepared: 02/15/2023
Project: Marsh Landing DDS Semi-Annual

WorkOrder: 2302671
Extraction Method: E350.1
Analytical Method: E350.1
Unit: mg/L

Ammonia As Nitrogen

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2302671-001E	Water	02/09/2023 13:30	WC_SKALAR 230215A1.2_26	263829

Analytes	Result	MDL	RL	DF	Date Analyzed
Ammonia, total as N	8.4	0.095	0.10	1	02/15/2023 17:10

Analyst(s): IGC



Analytical Report

Client: NRG Energy, LLC
Date Received: 02/09/2023 16:32
Date Prepared: 02/10/2023
Project: Marsh Landing DDS Semi-Annual

WorkOrder: 2302671
Extraction Method: Kelada-01
Analytical Method: Kelada-01
Unit: mg/L

Cyanide, Total

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2302671-001C	Water	02/09/2023 13:30	WC_Skalar3 230210A1_34	263520

Analytes	Result	MDL	RL	DF	Date Analyzed
Total Cyanide	ND	0.00059	0.0010	1	02/10/2023 10:55

Analyst(s): CC



Analytical Report

Client: NRG Energy, LLC
Date Received: 02/09/2023 16:32
Date Prepared: 02/17/2023
Project: Marsh Landing DDS Semi-Annual

WorkOrder: 2302671
Extraction Method: E420.4
Analytical Method: E420.4
Unit: mg/L

Phenolics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2302671-001D	Water	02/09/2023 13:30	WC_SKALAR 021723C1_18	263987

Analytes	Result	MDL	RL	DF	Date Analyzed
Phenolics	ND	0.0014	0.0020	1	02/17/2023 13:14

Analyst(s): RB



Quality Control Report

Client:	NRG Energy, LLC	WorkOrder:	2302671
Date Prepared:	02/21/2023	BatchID:	264074
Date Analyzed:	02/21/2023	Extraction Method:	E1664A_SG
Instrument:	O&G	Analytical Method:	E1664A
Matrix:	Water	Unit:	mg/L
Project:	Marsh Landing DDS Semi-Annual	Sample ID:	MB/LCS/LCSD-264074

QC Summary Report for E1664A

Analyte	MB Result	MDL	RL			
SGT-HEM	ND	1.5	5.0	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
SGT-HEM	8.7	9.1	10.42	84	87	64-132	4.06	30



Quality Control Report

Client:	NRG Energy, LLC	WorkOrder:	2302671
Date Prepared:	02/16/2023	BatchID:	263877
Date Analyzed:	02/16/2023	Extraction Method:	E1664A
Instrument:	O&G	Analytical Method:	E1664A
Matrix:	Water	Unit:	mg/L
Project:	Marsh Landing DDS Semi-Annual	Sample ID:	MB/LCS/LCSD-263877

QC Summary Report for E1664A

Analyte	MB Result	MDL	RL			
HEM	ND	0.91	5.0	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
HEM	17	18	20.83	83	88	78-114	0	30



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 02/09/2023
Date Analyzed: 02/10/2023
Instrument: GC40
Matrix: Water
Project: Marsh Landing DDSD Semi-Annual

WorkOrder: 2302671
BatchID: 263490
Extraction Method: E608.3/SW3620B
Analytical Method: E608.3
Unit: µg/L
Sample ID: MB/LCS/LCSD-263490

QC Summary Report for E608.3 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	-	-	-
Surrogate Recovery						
Decachlorobiphenyl	0.054			0.05	109	60-130

(Cont.)

CA ELAP 1644 • NELAP 4033ORELAP



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 02/09/2023
Date Analyzed: 02/10/2023
Instrument: GC40
Matrix: Water
Project: Marsh Landing DDSD Semi-Annual

WorkOrder: 2302671
BatchID: 263490
Extraction Method: E608.3/SW3620B
Analytical Method: E608.3
Unit: µg/L
Sample ID: MB/LCS/LCSD-263490

QC Summary Report for E608.3 w/ Florisil Clean-up

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Aldrin	0.043	0.040	0.050	87	80	54-130	7.63	20
a-BHC	0.044	0.041	0.050	89	82	70-130	7.78	20
b-BHC	0.040	0.037	0.050	80	74	70-130	7.33	20
d-BHC	0.050	0.046	0.050	100	93	70-130	7.36	20
g-BHC	0.046	0.043	0.050	92	86	60-130	7.58	20
a-Chlordane	0.043	0.040	0.050	86	80	55-130	7.16	20
g-Chlordane	0.042	0.039	0.050	83	77	55-130	7.24	20
p,p-DDD	0.046	0.043	0.050	92	86	70-130	6.72	20
p,p-DDE	0.045	0.042	0.050	90	84	70-130	6.74	20
p,p-DDT	0.050	0.047	0.050	99	94	70-130	5.77	20
Dieldrin	0.045	0.041	0.050	89	83	70-130	7.16	20
Endosulfan I	0.044	0.041	0.050	87	81	70-130	7.23	20
Endosulfan II	0.044	0.041	0.050	87	81	70-130	6.91	20
Endosulfan sulfate	0.049	0.046	0.050	98	92	70-130	6.68	20
Endrin	0.050	0.047	0.050	99	93	70-130	6.41	20
Endrin aldehyde	0.051	0.047	0.050	101	95	60-130	6.34	20
Endrin ketone	0.049	0.046	0.050	99	93	60-130	6.59	20
Heptachlor	0.051	0.048	0.050	103	95	43-130	7.36	20
Heptachlor epoxide	0.043	0.040	0.050	86	81	70-130	6.26	20
Methoxychlor	0.055	0.052	0.050	109	104	70-130	5.02	20
Aroclor1260	0.14	0.12	0.15	94	81	70-130	15.4	20
Surrogate Recovery								
Decachlorobiphenyl	0.063	0.060	0.050	126	119	60-130	5.84	20



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 02/11/2023
Date Analyzed: 02/11/2023
Instrument: GC10
Matrix: Water
Project: Marsh Landing DDS Semi-Annual

WorkOrder: 2302671
BatchID: 263590
Extraction Method: E624.1
Analytical Method: E624.1
Unit: µg/L
Sample ID: MB/LCS/LCSD-263590

QC Summary Report for E624.1

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Acrolein (Propenal)	ND	3.9	5.0	-	-	-
Acrylonitrile	ND	0.23	2.0	-	-	-
2-Chloroethyl Vinyl Ether	ND	0.44	1.0	-	-	-
Surrogate Recovery						
Dibromofluoromethane	25			25	100	70-130

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Acrolein (Propenal)	17	18	20	85	89	71-140	4.33	20
Acrylonitrile	19	20	20	94	100	67-145	6.04	20
2-Chloroethyl Vinyl Ether	21	22	20	106	110	70-124	4.02	20
Surrogate Recovery								
Dibromofluoromethane	23	23	25	94	93	70-130	0.761	20



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 02/15/2023
Date Analyzed: 02/15/2023
Instrument: GC38
Matrix: Water
Project: Marsh Landing DDSD Semi-Annual

WorkOrder: 2302671
BatchID: 263879
Extraction Method: E624.1
Analytical Method: E624.1
Unit: µg/L
Sample ID: MB/LCS/LCSD-263879

QC Summary Report for E624.1

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Benzene	ND	0.034	0.20	-	-	-
Bromodichloromethane	ND	0.022	0.050	-	-	-
Bromoform	ND	0.10	0.50	-	-	-
Bromomethane	ND	0.26	0.50	-	-	-
Carbon tetrachloride	ND	0.033	0.050	-	-	-
Chlorobenzene	ND	0.092	0.50	-	-	-
Chloroethane	ND	0.23	0.50	-	-	-
Chloroform	ND	0.015	0.10	-	-	-
Chloromethane	ND	0.18	0.50	-	-	-
Dibromochloromethane	ND	0.069	0.15	-	-	-
1,2-Dichlorobenzene	ND	0.11	0.50	-	-	-
1,3-Dichlorobenzene	ND	0.12	0.50	-	-	-
1,4-Dichlorobenzene	ND	0.11	0.50	-	-	-
1,1-Dichloroethane	ND	0.14	0.50	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.011	0.020	-	-	-
1,1-Dichloroethene	ND	0.0036	0.010	-	-	-
trans-1,2-Dichloroethene	ND	0.12	0.50	-	-	-
1,2-Dichloropropane	ND	0.029	0.20	-	-	-
cis-1,3-Dichloropropene	ND	0.13	0.50	-	-	-
trans-1,3-Dichloropropene	ND	0.20	0.50	-	-	-
Ethylbenzene	ND	0.14	0.50	-	-	-
Methylene chloride	ND	0.75	2.0	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.018	0.020	-	-	-
Tetrachloroethene	ND	0.028	0.20	-	-	-
Toluene	ND	0.096	0.50	-	-	-
1,1,1-Trichloroethane	ND	0.14	0.50	-	-	-
1,1,2-Trichloroethane	ND	0.026	0.20	-	-	-
Trichloroethene	ND	0.030	0.50	-	-	-
Trichlorofluoromethane	ND	0.13	0.50	-	-	-
Vinyl chloride	ND	0.0027	0.0050	-	-	-
Surrogate Recovery						
Dibromofluoromethane	30			25	118	70-130
Toluene-d8	30			25	120	70-130
4-BFB	2.3			2.5	92	70-130

(Cont.)



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 02/15/2023
Date Analyzed: 02/15/2023
Instrument: GC38
Matrix: Water
Project: Marsh Landing DDSD Semi-Annual

WorkOrder: 2302671
BatchID: 263879
Extraction Method: E624.1
Analytical Method: E624.1
Unit: µg/L
Sample ID: MB/LCS/LCSD-263879

QC Summary Report for E624.1

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Benzene	3.3	3.8	4	83	94	65-130	13.1	20
Bromodichloromethane	3.3	3.9	4	83	97	60-130	15.4	20
Bromoform	3.1	3.7	4	76	92	70-130	18.5	20
Bromomethane	4.1	4.4	4	101	110	50-130	8.03	20
Carbon tetrachloride	3.4	3.9	4	84	97	70-130	13.4	20
Chlorobenzene	3.4	3.9	4	85	97	65-130	12.6	20
Chloroethane	4.2	4.6	4	105	115	60-140	9.16	20
Chloroform	3.5	4.0	4	87	100	70-130	13.9	20
Chloromethane	3.7	3.9	4	91	98	50-130	6.61	20
Dibromochloromethane	3.1	3.7	4	77	92	70-130	17.1	20
1,2-Dichlorobenzene	3.4	3.8	4	84	95	65-130	11.6	20
1,3-Dichlorobenzene	3.5	4.0	4	87	99	70-130	13.2	20
1,4-Dichlorobenzene	3.4	3.8	4	85	95	65-130	11.9	20
1,1-Dichloroethane	3.3	3.8	4	83	94	70-130	13.0	20
1,2-Dichloroethane (1,2-DCA)	3.3	3.8	4	83	95	70-130	14.3	20
1,1-Dichloroethene	3.4	3.8	4	85	95	60-130	11.6	20
trans-1,2-Dichloroethene	3.4	3.8	4	85	96	70-130	12.0	20
1,2-Dichloropropane	3.3	3.8	4	83	96	60-130	14.3	20
cis-1,3-Dichloropropene	3.1	3.7	4	79	92	60-130	15.2	20
trans-1,3-Dichloropropene	3.2	3.7	4	80	93	60-130	15.6	20
Ethylbenzene	3.4	3.9	4	85	97	60-130	13.1	20
Methylene chloride	3.4	3.8	4	85	96	60-130	11.7	20
1,1,2,2-Tetrachloroethane	3.4	3.9	4	86	98	60-130	13.9	20
Tetrachloroethene	3.3	3.8	4	83	94	70-130	12.4	20
Toluene	3.2	3.7	4	81	92	70-130	12.7	20
1,1,1-Trichloroethane	3.3	3.8	4	83	94	70-130	12.6	20
1,1,2-Trichloroethane	3.3	3.8	4	82	95	70-130	14.9	20
Trichloroethene	3.4	3.9	4	86	98	65-130	13.4	20
Trichlorofluoromethane	3.3	3.7	4	81	92	60-130	11.9	20
Vinyl chloride	2.1	2.3	2	107	117	60-130	8.78	20
Surrogate Recovery								
Dibromofluoromethane	29	30	25	118	119	70-130	0.753	20
Toluene-d8	30	30	25	120	120	70-130	0.312	20
4-BFB	2.3	2.3	2.5	92	91	70-130	1.21	20



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 02/09/2023
Date Analyzed: 02/09/2023
Instrument: GC47
Matrix: Water
Project: Marsh Landing DDSD Semi-Annual

WorkOrder: 2302671
BatchID: 263433
Extraction Method: E625.1
Analytical Method: E625.1
Unit: µg/L
Sample ID: MB/LCS/LCSD-263433

QC Summary Report for E625.1

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Acenaphthene	ND	0.0020	0.0050	-	-	-
Acenaphthylene	ND	0.00093	0.0050	-	-	-
Anthracene	ND	0.0027	0.0050	-	-	-
Benzidine	ND	2.4	5.0	-	-	-
Benzo (a) anthracene	ND	0.012	0.050	-	-	-
Benzo (a) pyrene	ND	0.0031	0.0050	-	-	-
Benzo (b) fluoranthene	ND	0.0056	0.020	-	-	-
Benzo (g,h,i) perylene	ND	0.0051	0.020	-	-	-
Benzo (k) fluoranthene	ND	0.0052	0.020	-	-	-
Benzyl Alcohol	ND	3.2	5.0	-	-	-
Bis (2-chloroethoxy) Methane	ND	0.25	1.0	-	-	-
Bis (2-chloroethyl) Ether	ND	0.0020	0.0050	-	-	-
Bis (2-chloroisopropyl) Ether	ND	0.015	0.050	-	-	-
Bis (2-ethylhexyl) Adipate	ND	0.27	1.0	-	-	-
Bis (2-ethylhexyl) Phthalate	ND	0.045	0.20	-	-	-
4-Bromophenyl Phenyl Ether	ND	0.15	1.0	-	-	-
Butylbenzyl Phthalate	0.0077,J	0.0074	0.050	-	-	-
4-Chloroaniline	ND	0.0014	0.0050	-	-	-
4-Chloro-3-methylphenol	ND	0.37	1.0	-	-	-
2-Chloronaphthalene	ND	0.22	1.0	-	-	-
2-Chlorophenol	ND	0.013	0.050	-	-	-
4-Chlorophenyl Phenyl Ether	ND	0.22	1.0	-	-	-
Carbazole	ND	0.32	1.0	-	-	-
Chrysene	ND	0.0020	0.0050	-	-	-
Dibenzo (a,h) anthracene	ND	0.0056	0.020	-	-	-
n-Decane	ND	0.27	1.0	-	-	-
Dibenzofuran	ND	0.0015	0.0050	-	-	-
Di-n-butyl Phthalate	ND	0.018	0.050	-	-	-
1,2-Dichlorobenzene	ND	0.17	1.0	-	-	-
1,3-Dichlorobenzene	ND	0.28	1.0	-	-	-
1,4-Dichlorobenzene	ND	0.28	1.0	-	-	-
3,3-Dichlorobenzidine	ND	0.0024	0.0050	-	-	-
2,4-Dichlorophenol	ND	0.0030	0.010	-	-	-
Diethyl Phthalate	ND	0.016	0.050	-	-	-
2,4-Dimethylphenol	ND	0.49	1.0	-	-	-
Dimethyl Phthalate	ND	0.0048	0.010	-	-	-
4,6-Dinitro-2-methylphenol	ND	1.9	5.0	-	-	-
2,4-Dinitrophenol	ND	0.38	1.0	-	-	-

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Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 02/09/2023
Date Analyzed: 02/09/2023
Instrument: GC47
Matrix: Water
Project: Marsh Landing DDSD Semi-Annual

WorkOrder: 2302671
BatchID: 263433
Extraction Method: E625.1
Analytical Method: E625.1
Unit: µg/L
Sample ID: MB/LCS/LCSD-263433

QC Summary Report for E625.1

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
2,4-Dinitrotoluene	ND	0.020	0.050	-	-	-
2,6-Dinitrotoluene	ND	0.019	0.050	-	-	-
Di-n-octyl Phthalate	ND	0.77	1.0	-	-	-
1,2-Diphenylhydrazine	ND	0.20	1.0	-	-	-
Fluoranthene	ND	0.0027	0.010	-	-	-
Fluorene	ND	0.0029	0.010	-	-	-
Hexachlorobenzene	ND	0.0016	0.0050	-	-	-
Hexachlorobutadiene	ND	0.0020	0.0050	-	-	-
Hexachlorocyclopentadiene	ND	2.3	5.0	-	-	-
Hexachloroethane	ND	0.0029	0.010	-	-	-
Indeno (1,2,3-cd) pyrene	ND	0.0072	0.020	-	-	-
Isophorone	ND	0.92	2.0	-	-	-
2-Methylnaphthalene	ND	0.0015	0.0050	-	-	-
2-Methylphenol (o-Cresol)	ND	0.33	1.0	-	-	-
3 & 4-Methylphenol (m,p-Cresol)	ND	0.25	1.0	-	-	-
Naphthalene	ND	0.012	0.050	-	-	-
2-Nitroaniline	ND	1.3	5.0	-	-	-
3-Nitroaniline	ND	1.8	5.0	-	-	-
4-Nitroaniline	ND	1.9	5.0	-	-	-
Nitrobenzene	ND	0.29	1.0	-	-	-
2-Nitrophenol	ND	1.7	5.0	-	-	-
4-Nitrophenol	ND	1.6	5.0	-	-	-
N-Nitrosodimethylamine	ND	1.9	5.0	-	-	-
N-Nitrosodiphenylamine	ND	0.23	1.0	-	-	-
N-Nitrosodi-n-propylamine	ND	0.35	1.0	-	-	-
n-Octadecane	ND	0.11	1.0	-	-	-
Pentachlorophenol	ND	0.089	0.25	-	-	-
Phenanthrene	0.0031,J	0.0026	0.0050	-	-	-
Phenol	ND	0.057	0.20	-	-	-
Pyrene	ND	0.0019	0.0050	-	-	-
Pyridine	ND	0.23	1.0	-	-	-
1,2,4-Trichlorobenzene	ND	0.19	1.0	-	-	-
2,4,5-Trichlorophenol	ND	0.0025	0.010	-	-	-
2,4,6-Trichlorophenol	ND	0.0038	0.010	-	-	-

(Cont.)



Quality Control Report

Client: NRG Energy, LLC

Date Prepared: 02/09/2023

Date Analyzed: 02/09/2023

Instrument: GC47

Matrix: Water

Project: Marsh Landing DDSD Semi-Annual

WorkOrder: 2302671

BatchID: 263433

Extraction Method: E625.1

Analytical Method: E625.1

Unit: µg/L

Sample ID: MB/LCS/LCSD-263433

QC Summary Report for E625.1

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Surrogate Recovery						
2-Fluorophenol	2.9			5	58	20-103
Phenol-d5	1.7			5	34	20-120
Nitrobenzene-d5	4.5			5	90	61-130
2-Fluorobiphenyl	4.4			5	88	63-115
2,4,6-Tribromophenol	4.5			5	91	48-149
4-Terphenyl-d14	3.1			5	63	32-113



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 02/09/2023
Date Analyzed: 02/09/2023
Instrument: GC47
Matrix: Water
Project: Marsh Landing DDSD Semi-Annual

WorkOrder: 2302671
BatchID: 263433
Extraction Method: E625.1
Analytical Method: E625.1
Unit: µg/L
Sample ID: MB/LCS/LCSD-263433

QC Summary Report for E625.1

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Acenaphthene	0.22	0.24	0.25	87	98	60-132	12.3	25
Acenaphthylene	0.24	0.27	0.25	94	108	54-126	13.2	25
Anthracene	0.26	0.30	0.25	103	118	60-130	14.0	25
Benzidine	14	11	25	55	44	20-130	23.4	25
Benzo (a) anthracene	0.27	0.29	0.25	106	114	60-130	7.44	25
Benzo (a) pyrene	0.28	0.29	0.25	112	118	60-130	4.70	25
Benzo (b) fluoranthene	0.27	0.28	0.25	106	112	60-130	5.44	25
Benzo (g,h,i) perylene	0.27	0.27	0.25	107	109	50-130	1.74	25
Benzo (k) fluoranthene	0.30	0.32	0.25	119	127	60-130	6.50	25
Benzyl Alcohol	17	19	25	68	77	60-130	11.6	25
Bis (2-chloroethoxy) Methane	4.5	4.6	5	89	92	65-130	3.72	25
Bis (2-chloroethyl) Ether	0.24	0.31	0.25	97	124	60-130	23.9	25
Bis (2-chloroisopropyl) Ether	0.22	0.25	0.25	86	102	63-139	16.5	25
Bis (2-ethylhexyl) Adipate	4.9	5.4	5	97	107	60-130	10.2	25
Bis (2-ethylhexyl) Phthalate	0.34	0.45	0.25	136,F5	179,F5	60-130	27.5,F2	25
4-Bromophenyl Phenyl Ether	4.8	5.0	5	96	101	65-120	4.65	25
Butylbenzyl Phthalate	0.32	0.32	0.25	126	130	60-140	2.90	25
4-Chloroaniline	0.22	0.23	0.25	87	92	60-130	5.91	25
4-Chloro-3-methylphenol	4.7	5.3	5	95	106	65-130	10.7	25
2-Chloronaphthalene	4.4	4.7	5	87	94	65-120	7.37	25
2-Chlorophenol	0.20	0.24	0.25	80	97	60-130	19.0	25
4-Chlorophenyl Phenyl Ether	4.0	4.4	5	80	87	65-130	9.29	25
Carbazole	5.1	5.5	5	102	110	70-130	7.38	25
Chrysene	0.26	0.27	0.25	104	110	70-130	5.31	25
Dibenzo (a,h) anthracene	0.26	0.26	0.25	105	105	50-130	0.125	25
n-Decane	3.4	4.1	5	68	82	30-130	18.7	25
Dibenzofuran	0.22	0.24	0.25	88	95	65-130	8.47	25
Di-n-butyl Phthalate	0.33	0.37	0.25	133,F5	149,F5	60-130	11.0	25
1,2-Dichlorobenzene	3.9	4.5	5	77	91	60-130	16.5	25
1,3-Dichlorobenzene	3.7	4.3	5	73	86	60-130	15.6	25
1,4-Dichlorobenzene	3.6	4.3	5	73	86	60-130	16.3	25
3,3-Dichlorobenzidine	0.25	0.24	0.25	99	95	60-130	4.11	25
2,4-Dichlorophenol	0.22	0.24	0.25	90	95	53-122	6.45	25
Diethyl Phthalate	0.23	0.26	0.25	94	106	65-130	12.2	25
2,4-Dimethylphenol	4.7	4.9	5	94	98	60-130	4.97	25
Dimethyl Phthalate	0.22	0.24	0.25	86	95	60-130	9.24	25
4,6-Dinitro-2-methylphenol	22	23	25	87	93	60-130	6.06	25
2,4-Dinitrophenol	3.4	3.9	5	68	78	50-130	14.7	25

(Cont.)



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 02/09/2023
Date Analyzed: 02/09/2023
Instrument: GC47
Matrix: Water
Project: Marsh Landing DDSD Semi-Annual

WorkOrder: 2302671
BatchID: 263433
Extraction Method: E625.1
Analytical Method: E625.1
Unit: µg/L
Sample ID: MB/LCS/LCSD-263433

QC Summary Report for E625.1

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
2,4-Dinitrotoluene	0.26	0.28	0.25	104	113	70-130	8.03	25
2,6-Dinitrotoluene	0.27	0.30	0.25	107	118	68-137	10.3	25
Di-n-octyl Phthalate	5.4	5.8	5	108	116	70-130	6.70	25
1,2-Diphenylhydrazine	4.9	5.1	5	99	103	65-130	3.74	25
Fluoranthene	0.30	0.33	0.25	120	134,F5	65-130	10.9	25
Fluorene	0.24	0.28	0.25	97	111	70-120	13.1	25
Hexachlorobenzene	0.22	0.23	0.25	88	92	60-130	4.61	25
Hexachlorobutadiene	0.20	0.21	0.25	78	84	68-130	6.86	25
Hexachlorocyclopentadiene	17	19	25	69	75	50-130	8.15	25
Hexachloroethane	0.19	0.23	0.25	76	92	55-120	19.6	25
Indeno (1,2,3-cd) pyrene	0.26	0.27	0.25	106	106	50-130	0.781	25
Isophorone	5.4	5.7	5	108	114	52-130	5.67	25
2-Methylnaphthalene	0.24	0.25	0.25	96	101	60-130	4.94	25
2-Methylphenol (o-Cresol)	3.8	4.8	5	75	96	60-130	24.4	25
3 & 4-Methylphenol (m,p-Cresol)	3.8	4.2	5	75	84	60-130	11.6	25
Naphthalene	0.20	0.21	0.25	78	84	70-130	7.03	25
2-Nitroaniline	22	24	25	90	97	65-130	7.57	25
3-Nitroaniline	13	14	25	51,F5	54,F5	70-140	5.66	25
4-Nitroaniline	21	23	25	84	91	70-130	7.11	25
Nitrobenzene	4.4	4.8	5	89	97	60-130	8.80	25
2-Nitrophenol	23	25	25	91	100	70-130	9.95	25
4-Nitrophenol	12	13	25	47	51	30-130	6.81	25
N-Nitrosodimethylamine	12	14	25	50	56	30-130	12.5	25
N-Nitrosodiphenylamine	4.9	5.2	5	98	103	65-130	5.55	25
N-Nitrosodi-n-propylamine	4.2	4.9	5	83	97	59-130	15.3	25
n-Octadecane	5.4	5.7	5	109	114	60-130	4.58	25
Pentachlorophenol	1.3	1.4	1.25	100	114	60-130	13.2	25
Phenanthrene	0.24	0.26	0.25	96	104	65-120	7.99	25
Phenol	0.35	0.40	1	35,F5	40,F5	48-120	13.4	25
Pyrene	0.27	0.30	0.25	109	119	70-120	9.21	25
Pyridine	2.2	2.3	5	44	47	30-130	6.27	25
1,2,4-Trichlorobenzene	4.2	4.5	5	83	91	57-130	8.60	25
2,4,5-Trichlorophenol	0.25	0.28	0.25	100	113	65-130	12.7	25
2,4,6-Trichlorophenol	0.26	0.29	0.25	102	116	69-130	12.5	25

(Cont.)



Quality Control Report

Client: NRG Energy, LLC

Date Prepared: 02/09/2023

Date Analyzed: 02/09/2023

Instrument: GC47

Matrix: Water

Project: Marsh Landing DDS Semi-Annual

WorkOrder: 2302671

BatchID: 263433

Extraction Method: E625.1

Analytical Method: E625.1

Unit: µg/L

Sample ID: MB/LCS/LCSD-263433

QC Summary Report for E625.1

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Surrogate Recovery								
2-Fluorophenol	2.7	3.1	5	55	62	20-103	13.0	25
Phenol-d5	1.8	1.9	5	35	39	20-120	9.96	25
Nitrobenzene-d5	4.5	4.9	5	90	98	61-130	7.71	25
2-Fluorobiphenyl	4.4	4.6	5	88	91	63-115	4.06	25
2,4,6-Tribromophenol	5.7	5.9	5	113	118	48-149	4.71	25
4-Terphenyl-d14	3.5	3.6	5	70	73	32-113	3.54	25



Quality Control Report

Client:	NRG Energy, LLC	WorkOrder:	2302671
Date Prepared:	02/15/2023	BatchID:	263829
Date Analyzed:	02/15/2023	Extraction Method:	E350.1
Instrument:	WC_SKALAR	Analytical Method:	E350.1
Matrix:	Water	Unit:	mg/L
Project:	Marsh Landing DDSD Semi-Annual	Sample ID:	MB/LCS/LCSD-263829

QC Summary Report for E350.1

Analyte	MB Result	MDL	RL			
Ammonia, total as N	ND	0.095	0.10	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Ammonia, total as N	3.9	3.9	4	97	98	88-113	1.49	20



Quality Control Report

Client:	NRG Energy, LLC	WorkOrder:	2302671
Date Prepared:	02/10/2023	BatchID:	263520
Date Analyzed:	02/10/2023	Extraction Method:	Kelada-01
Instrument:	WC_Skalar3	Analytical Method:	Kelada-01
Matrix:	Water	Unit:	µg/L
Project:	Marsh Landing DDS Semi-Annual	Sample ID:	MB/LCS/LCSD-263520

QC Summary Report for Kelada-01

Analyte	MB Result	MDL	RL			
Total Cyanide	ND	0.59	1.0	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Total Cyanide	51	49	50	101	99	90-110	2.66	20



Quality Control Report

Client:	NRG Energy, LLC	WorkOrder:	2302671
Date Prepared:	02/17/2023	BatchID:	263987
Date Analyzed:	02/17/2023	Extraction Method:	E420.4
Instrument:	WC_SKALAR	Analytical Method:	E420.4
Matrix:	Water	Unit:	µg/L
Project:	Marsh Landing DDSD Semi-Annual	Sample ID:	MB/LCS/LCSD-263987

QC Summary Report for E420.4

Analyte	MB Result	MDL	RL			
Phenolics	ND	1.4	2.0	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Phenolics	39	42	40	99	105	80-120	5.96	20



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 2302671

ClientCode: GOA

QuoteID: 212372

☐ WaterTrax

☐ CLIP

☐ EDF

☐ EQuIS

☐ Dry-Weight

☒ Email

☐ HardCopy

☐ ThirdParty

☒ J-flag

☐ Detection Summary

☐ Excel

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: 4501914176
Project: Marsh Landing DDSD Semi-Annual

Bill to:

Accounts Payable
NRG
4900 N. Scottsdale Road, Ste. 5000
Scottsdale, AZ 85251
invoices@clearwayenergy.coupahost.co

Requested TAT: 5 days;

Date Received: 02/09/2023

Date Logged: 02/09/2023

Lab ID	ClientSampleID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
2302671-001	FAC Combined Wastewater	Water	2/9/2023 13:30	<input type="checkbox"/>	B	A	F	G	H	I	E	C	D	A		

Test Legend:

1	1664A_SG_W
5	624ACR+2CEVE_W
9	PHENOLICS_W

2	1664A_W
6	625_SCSM_W
10	PRDisposal Fee

3	608_W
7	AMMONIA_W
11	

4	624_W
8	CN_PPM_W
12	

Project Manager: Susan Thompson

Prepared by: Adrianna Cardoza

Comments: Use QUOTE 212372 for any Marsh Landing projects to get correct analyte list. Always report in mg/L.

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



McC Campbell Analytical, Inc.

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

WORK ORDER SUMMARY

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

Project: Marsh Landing DDSD Semi-Annual

Work Order: 2302671
QC Level: LEVEL 2
Date Logged: 2/9/2023

Comments: Use QUOTE 212372 for any Marsh Landing projects to get correct analyte list. Always report in mg/L.

☐ WaterTrax ☐ CLIP ☐ EDF ☐ Excel ☐ EQUIS ☒ Email ☐ HardCopy ☐ ThirdParty ☒ J-flag

LabID	ClientSampID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	U**	Head Space	Dry-Weight	Collection Date & Time	TAT	Test Due Date	Sediment Content	Hold	Sub Out
001A	FAC Combined Wastewater	Water	E1664A (HEM; Oil & Grease w/o S.G. Clean-Up)	1	1LA w/ HCl	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2/9/2023 13:30	5 days	2/16/2023	Present	<input type="checkbox"/>	<input type="checkbox"/>
001B	FAC Combined Wastewater	Water	E1664A (SGT- HEM; Non-polar Material)	1	1LA w/ HCl	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2/9/2023 13:30	5 days	2/16/2023	Present	<input type="checkbox"/>	<input type="checkbox"/>
001C	FAC Combined Wastewater	Water	Kelada-01 (Cyanide, Total)	1	250mL aHDPE w/ NaOH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2/9/2023 13:30	5 days	2/16/2023	Present	<input type="checkbox"/>	<input type="checkbox"/>
001D	FAC Combined Wastewater	Water	E420.4 (Phenolics)	1	250mL aG w/ H2SO4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2/9/2023 13:30	5 days	2/16/2023	Present	<input type="checkbox"/>	<input type="checkbox"/>
001E	FAC Combined Wastewater	Water	E350.1 (Ammonia)	1	250mL aG w/ H2SO4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2/9/2023 13:30	5 days	2/16/2023	Present	<input type="checkbox"/>	<input type="checkbox"/>

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).

- Organic extracts are held for 40 days before disposal; Inorganic extract are held for 30 days.

- 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.

U** = An unpreserved container was received for a method that suggests a preservation in order to extend hold time for analysis.



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WORK ORDER SUMMARY

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

Project: Marsh Landing DDSD Semi-Annual

Work Order: 2302671
QC Level: LEVEL 2
Date Logged: 2/9/2023

Comments: Use QUOTE 212372 for any Marsh Landing projects to get correct analyte list. Always report in mg/L.

☐ WaterTrax ☐ CLIP ☐ EDF ☐ Excel ☐ EQUIS ☒ Email ☐ HardCopy ☐ ThirdParty ☒ J-flag

LabID	ClientSampID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	U**	Head Space	Dry- Weight	Collection Date & Time	TAT	Test Due Date	Sediment Content	Hold	Sub Out
001F	FAC Combined Wastewater	Water	E608.3 (OC Pesticides+PCBs w/ Florisil Clean-up) <a-BHC_1, Aldrin_1, Aroclor1016_1, Aroclor1221_1, Aroclor1232_1, Aroclor1242_1, Aroclor1248_1, Aroclor1254_1, Aroclor1260_1, b-BHC_1, Chlordane (Technical)_1, d-BHC_1, Dieldrin_1, Endosulfan I_1, Endosulfan II_1, Endosulfan sulfate_1, Endrin aldehyde_1, Endrin_1, g-BHC_1, Heptachlor epoxide_1, Heptachlor_1, p,p-DDD_1, p,p-DDE_1, p,p-DDT_1, Toxaphene_1>	1	1LA, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2/9/2023 13:30	5 days	2/16/2023	Present	<input type="checkbox"/>	<input type="checkbox"/>

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).

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WORK ORDER SUMMARY

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

Project: Marsh Landing DDSD Semi-Annual

Work Order: 2302671
QC Level: LEVEL 2
Date Logged: 2/9/2023

Comments: Use QUOTE 212372 for any Marsh Landing projects to get correct analyte list. Always report in mg/L.

☐ WaterTrax ☐ CLIP ☐ EDF ☐ Excel ☐ EQuIS ☒ Email ☐ HardCopy ☐ ThirdParty ☒ J-flag

LabID	ClientSampID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	U**	Head Space	Dry-Weight	Collection Date & Time	TAT	Test Due Date	Sediment Content	Hold	Sub Out
001G	FAC Combined Wastewater	Water	E624.1 (VOCs) <1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2-Dichlorobenzene, 1,2-Dichloroethane (1,2-DCA), 1,2-Dichloropropane, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Benzene, Bromodichloromethane, Bromoform, Bromomethane, Carbon tetrachloride, Chlorobenzene, Chloroethane, Chloroform, Chloromethane, cis-1,3-Dichloropropene, Dibromochloromethane, Ethylbenzene, Methylene chloride, Tetrachloroethene, Toluene, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Trichlorofluoromethane, Vinyl chloride>	2	VOA w/ HCl	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2/9/2023 13:30	5 days	2/16/2023	Present	<input type="checkbox"/>	<input type="checkbox"/>
001H	FAC Combined Wastewater	Water	E624.1 (ACRO, ACRY, & 2-CEVE)	2	VOA, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2/9/2023 13:30	5 days	2/16/2023	Present	<input type="checkbox"/>	<input type="checkbox"/>

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).

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WORK ORDER SUMMARY

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

Project: Marsh Landing DDSD Semi-Annual

Work Order: 2302671
QC Level: LEVEL 2
Date Logged: 2/9/2023

Comments: Use QUOTE 212372 for any Marsh Landing projects to get correct analyte list. Always report in mg/L.

☐ WaterTrax ☐ CLIP ☐ EDF ☐ Excel ☐ EQUIS ☒ Email ☐ HardCopy ☐ ThirdParty ☒ J-flag

LabID	ClientSampID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	U**	Head Space	Dry-Weight	Collection Date & Time	TAT	Test Due Date	Sediment Content	Hold	Sub Out
001I	FAC Combined Wastewater	Water	E625.1 (SVOCs) <1,2,4-Trichlorobenzene, 1,2-Dichlorobenzene, 1,2-Diphenylhydrazine, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 2,4,6-Trichlorophenol, 2,4-Dichlorophenol, 2,4-Dimethylphenol, 2,4-Dinitrophenol, 2,4-Dinitrotoluene, 2,6-Dinitrotoluene, 2-Chloronaphthalene, 2-Chlorophenol, 2-Nitrophenol, 3,3-Dichlorobenzidine, 4,6-Dinitro-2-methylphenol, 4-Bromophenyl Phenyl Ether, 4-Chloro-3-methylphenol, 4-Chlorophenyl Phenyl Ether, 4-Nitrophenol, Acenaphthene, Acenaphthylene, Anthracene, Benzidine, Benzo (a) anthracene, Benzo (a) pyrene, Benzo (b) fluoranthene, Benzo (g,h,i) perylene, Benzo (k) fluoranthene, Bis (2-chloroethoxy) Methane, Bis (2-chloroethyl) Ether, Bis (2-chloroisopropyl) Ether, Bis (2-ethylhexyl) Phthalate, Butylbenzyl Phthalate, Chrysene, Dibenzo (a,h)	1	1LA, Unpres	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2/9/2023 13:30	5 days	2/16/2023	Present	<input type="checkbox"/>	<input type="checkbox"/>

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).

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WORK ORDER SUMMARY

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

Project: Marsh Landing DDSD Semi-Annual

Work Order: 2302671
QC Level: LEVEL 2
Date Logged: 2/9/2023

Comments: Use QUOTE 212372 for any Marsh Landing projects to get correct analyte list. Always report in mg/L.

☐ WaterTrax ☐ CLIP ☐ EDF ☐ Excel ☐ EQUIS ☒ Email ☐ HardCopy ☐ ThirdParty ☒ J-flag

LabID	ClientSampID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	U**	Head Space	Dry- Weight	Collection Date & Time	TAT	Test Due Date	Sediment Content	Hold	Sub Out
			anthracene, Diethyl Phthalate, Dimethyl Phthalate, Di-n-butyl Phthalate, Di-n-octyl Phthalate, Fluoranthene, Fluorene, Hexachlorobenzene, Hexachlorobutadiene, Hexachlorocyclopentadiene, Hexachloroethane, Indeno (1,2,3-cd) pyrene, Isophorone, Naphthalene, Nitrobenzene, N-Nitrosodimethylamine, N-Nitrosodi-n-propylamine, N-Nitrosodiphenylamine, Pentachlorophenol, Phenanthrene, Phenol, Pyrene>											

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).

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- 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.


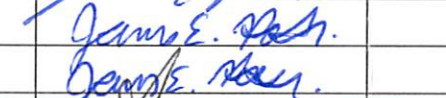
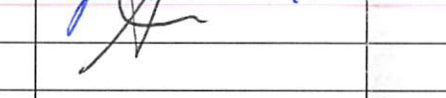
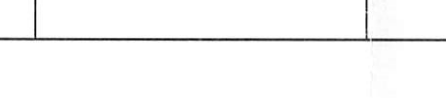

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2302670

Chain of Custody

Page 1 of 3-Semi-Annual

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				ANALYSIS REQUEST			
Laboratory: McC Campbell Analytical, Inc. Attention: 1534 Willow Pass Road, Pittsburg, CA 94565-1701 Address: 925.252.9262/ 925.252.9269 Phone/Fax:						Company: Marsh Landing LLC Attention: Accounts Payable Address: invoices@clearwaterenergy.com P.O. No.: 4501914176		Plant: Marsh Landing Title: DDSD Phase: Semi-Annual Manager: David Frandsen				Oil and Grease (animal/vegetable) ¹ (EPA Method 1664A) Oil and Grease (Petroleum/Mineral) ² (EPA Method 1664A)			
SAMPLE INFORMATION							CONTAINER INFORMATION								
Sample Number	Sample Date	Sample Collection Time	Regulatory Driver	Regulatory Frequency	Sample Medium	Sample Type	Sample Description	Number	Type	Volume (each, L)	Preserv.				
ML-23-022	9-Feb-23	13:30	DDSD	Semi-Annual	Wastewater	Grab	FAC Combined Wastewater	1	Amber Glass Jar	1	Hydrochloric Acid (pH<2, 4°C)	X			
ML-23-023	9-Feb-23	13:30	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 Original to: David Frandsen Title: Environmental Specialist/Engineer Address: P.O. Box 1687 Antioch, CA 94509 Phone/Fax: 925.324-3533/6509 E-mail: david.frandsen@nrg.com E-mail CC: james.robinson@nrg.com E-mail CC: joe.moura@nrg.com			LABORATORY NOTES RE: SAMPLE RECEIPT/CONDITION					DIRECTIONS FOR LABORATORY 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. Animal/Vegetable O/G 2. Petroleum/Mineral O/G Please report all results with the units of mg/L. RESULTS AND PRICING PER QUOTE ID: 212372. *Include sample description with client sample number ID.							
PRINTED NAME			SIGNATURE			COMPANY		DATE		TIME					
Sampled by: Ryan Robinson.						NRG Energy Services		9-Feb-23		13:30					
Relinquished by: Ryan Robinson.						NRG Energy Services		9-Feb-23		1440					
Received by: James E. Robinson.						McC Campbell Analytical, Inc. - NRG		9-Feb-23		1440					
Relinquished by: James E. Robinson.						NRG		9-Feb-23		1632					
Received by: Adrianna Carls								2-9-23		1632					
Relinquished by:															
Received by:															


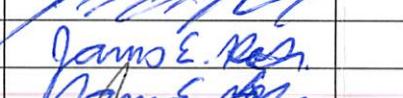
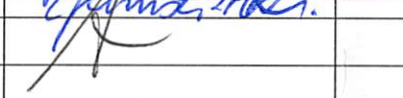


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2302671

Chain of Custody

Page 2 of 3-Semi-Annual

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				ANALYSIS REQUEST				
Laboratory: McCampbell Analytical, Inc. Attention: 1534 Willow Pass Road, Pittsburg, CA 94565-1701 Address: 925.252.9262/ 925.252.9269 Phone/Fax:							Company: Marsh Landing LLC Attention: Accounts Payable Address: invoices@cleanenergy.com P.O. No.: 4501914176		Plant: Marsh Landing Title: DDSD Phase: Semi-Annual Manager: David Frandsen				Cyanide* (Kelada-01)	Phenols (EPA Method 420.4)	Ammonia as N (EPA Method 350.1)		
SAMPLE INFORMATION							CONTAINER INFORMATION										
Sample Number	Sample Date	Sample Collection Time	Regulatory Driver	Regulatory Frequency	Sample Medium	Sample Type	Sample Description	Number	Type	Volume (each, mL)	Preserv.						
ML-23-024	9-Feb-23	13:30	DDSD	Semi-Annual	Wastewater	Grab	FAC Combined Wastewater	1	HDPE Bottle	250	HNO3 (pH<2)						
ML-23-025	9-Feb-23	13:30	DDSD	Semi-Annual	Wastewater	Grab	FAC Combined Wastewater	1	Amber Glass Jar	500	H2SO4 (pH<2, 4°C)		X				
ML-23-026	9-Feb-23	13:30	DDSD	Semi-Annual	Wastewater	C-24	FAC Combined Wastewater	1	Amber Glass Jar	500	H2SO4 (pH<2, 4°C)			X			
												HOLDING TIME:		14 days	28 days	28 days	
REPORTING Original to: David Frandsen Title: Environmental Specialist/Engineer Address: P.O. Box 1687 Antioch, CA 94509 Phone/Fax: 925.324-3533/6509 E-mail: david.frandsen@nrg.com E-mail CC: james.robinson@nrg.com joe.moura@nrg.com			LABORATORY NOTES RE: SAMPLE RECEIPT/CONDITION Cyanide sample pretreated with sodium thiosulfate prior to preservation with sodium hydroxide.					DIRECTIONS FOR LABORATORY 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. Please report all results with the units of mg/L. RESULTS AND PRICING PER QUOTE ID: 212372. *Include sample description with client sample number ID.									
PRINTED NAME			SIGNATURE		COMPANY		DATE		TIME								
Sampled by: Ryan Robinson.					NRG Energy Services		9-Feb-23		13:30								
Relinquished by: Ryan Robinson.					NRG Energy Services		9-Feb-23		1420								
Received by: James E. Robinson					McC Campbell Analytical, Inc - NRG		9-Feb-23		1420								
Relinquished by: James E. Robinson.					NRG		9-Feb-23		1632								
Received by: Adeianna Cardza							2-9-23		1632								
Relinquished by:																	
Received by:																	

2302671

Chain of Custody

Page 3 of 3-Semi-Annual

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		ANALYSIS REQUEST				
McCampbell Analytical, Inc. Attention: 1534 Willow Pass Road, Pittsburg, CA 94565-1701 Address: 925.252.9262/ 925.252.9269 Phone/Fax:							Marsh Landing LLC Attention: Accounts Payable Address: invoices@cleaveenergy.com P.O. No.: 4501914176		Marsh Landing Title: DDSD Phase: Semi-Annual Manager: David Frandsen		Pesticides & PCBs (EPA Method 608) Volatile Organics (EPA Method 624) Volatile Organics (EPA Method 624) Semi-Volatile Organics (EPA Method 625)				
SAMPLE INFORMATION							CONTAINER INFORMATION								
Sample Number	Sample Date	Sample Collection Time	Regulatory Driver	Regulatory Frequency	Sample Medium	Sample Type	Sample Description	Number	Type	Volume (each, mL)	Preserv.	Pesticides & PCBs (EPA Method 608)	Volatile Organics (EPA Method 624)	Volatile Organics (EPA Method 624)	Semi-Volatile Organics (EPA Method 625)
ML-23-027	9-Feb-23	13:30	DDSD	Semi-Annual	Water	Grab	FAC Combined Wastewater	1	Amber Glass	1,000	None (4°C)	X			
ML-23-028	9-Feb-23	13:30	DDSD	Semi-Annual	Water	Grab	FAC Combined Wastewater	2	Clear VOA	43	HCL (ZHS, pH<2, 4°C)		X		
ML-23-029	9-Feb-23	13:30	DDSD	Semi-Annual	Water	Grab	FAC Combined Wastewater	2	Clear VOA	43	None (4°C)			X	
ML-23-030	9-Feb-23	13:30	DDSD	Semi-Annual	Water	Grab	FAC Combined Wastewater	1	Amber Glass	1,000	None (4°C)				X
* 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.												HOLDING TIME: 40 days 14 days 3 days 40 days			
REPORTING			LABORATORY NOTES RE: SAMPLE RECEIPT/CONDITION					DIRECTIONS FOR LABORATORY							
Original to: David Frandsen Title: Environmental Specialist/Engineer Address: P.O. Box 1687 Antioch, CA 94509 Phone/Fax: 925.324-3533/6509 E-mail: david.frandsen@nrg.com E-mail CC: james.robinson@nrg.com E-mail CC: joe.moura@nrg.com								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. 1. VOCs- Acrolein, acrylonitrile, and 2-cleave Please report all results with the units of mg/L. RESULTS AND PRICING PER QUOTE ID: 212372 *Include sample description with client sample number ID.							
PRINTED NAME			SIGNATURE					COMPANY		DATE		TIME			
Sampled by: Ryan Robinson.								NRG Energy Services		9-Feb-23		13:30			
Relinquished by: Ryan Robinson.								NRG Energy Services		9-Feb-23		1420			
Received by: James E. Robinson								McCampbell Analytical, Inc. NRG		9-Feb-23		1420			
Relinquished by: James E. Robinson								NRG		9-Feb-23		1632			
Received by: Adrianna Carlotta										2-9-23		1632			
Relinquished by:															
Received by:															



Sample Receipt Checklist

Client Name: NRG Energy, LLC
Project: Marsh Landing DDSD Semi-Annual
WorkOrder №: 2302671 Matrix: Water
Carrier: Client Drop-In

Date and Time Received: 2/9/2023 16:32
Date Logged: 2/9/2023
Received by: Adrianna Cardoza
Logged by: Adrianna Cardoza

Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sampler's name noted on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
COC agrees with Quote?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: WET ICE)

Sample/Temp Blank temperature	Temp: 4°C		NA <input type="checkbox"/>
ZHS conditional analyses: VOA meets zero headspace requirement (VOCs, TPHg/BTEX, RSK)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
pH acceptable upon receipt (Metal: <2; Nitrate 353.2/4500NO3: <2; 522: <4; 218.7: >8)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

UCMR Samples:

pH tested and acceptable upon receipt (200.7: ≤2; 533: 6 - 8; 537.1: 6 - 8)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Free Chlorine tested and acceptable upon receipt (<0.1mg/L) [not applicable to 200.7]?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

Comments:



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 2302815

Report Created for: NRG Energy, LLC

3201 Wilbur Avenue
Antioch, CA 94509

Project Contact: David Frandsen

Project P.O.: 4501914176

Project: Marsh Landing DDSD Annual

Project Received: 02/09/2023

Analytical Report reviewed & approved for release on 02/17/2023 by:

Christine Askari
Project Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in a case narrative.





Glossary of Terms & Qualifier Definitions

Client: NRG Energy, LLC

WorkOrder: 2302815

Project: Marsh Landing DDSD Annual

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
CPT	Consumer Product Testing not NELAP Accredited
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
LQL	Lowest Quantitation Level
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	MDL is the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results. Definition and Procedure for the Determination of the Method Detection Limit, Revision 2, 40CFR, Part 136, Appendix B, EPA 821-R-16-006, December 2016.
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
NA	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 is the lowest level that can be reliably determined within specified limits of precision and accuracy during routine laboratory operating conditions. (The RL cannot be lower than the lowest calibration standard used in the initial calibration of the instrument and must be greater than the MDL.)
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
TZA	TimeZone Net Adjustment for sample collected outside of MAI's UTC.
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)



Glossary of Terms & Qualifier Definitions

Client: NRG Energy, LLC

WorkOrder: 2302815

Project: Marsh Landing DDSD Annual

Analytical Qualifiers

S Surrogate recovery outside accepted recovery limits.
c1 Surrogate recovery outside of the control limits due to the dilution of the sample.



Analytical Report

Client: NRG Energy, LLC
Date Received: 02/09/2023 16:32
Date Prepared: 02/13/2023
Project: Marsh Landing DDS Annual

WorkOrder: 2302815
Extraction Method: E300.1
Analytical Method: E300.1
Unit: mg/L

Inorganic Anions by IC

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2302815-001B	Water	02/09/2023 13:30	IC4 02152325.D	263627

Analytes	Result	MDL	RL	DF	Date Analyzed
Sulfate	51	1.6	5.0	50	02/13/2023 16:34

Surrogates	REC (%)	Qualifiers	Limits	
Malonate	0	S	90-115	02/13/2023 16:34

Analyst(s): ND

Analytical Comments: c1



Analytical Report

Client: NRG Energy, LLC
Date Received: 02/09/2023 16:32
Date Prepared: 02/16/2023
Project: Marsh Landing DDS Annual

WorkOrder: 2302815
Extraction Method: SM4500-S⁻² D-2000
Analytical Method: SM4500 S⁻² D
Unit: mg/L

Total Sulfide - S

Client ID	Lab ID	Matrix	Date Collected		Instrument	Batch ID
FAC Combined Wastewater	2302815-001A	Water	02/09/2023 13:30		SPECTROPHOTOMETER2	263967

<u>Analytes</u>	<u>Result</u>	<u>MDL</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Total Sulfide	ND	0.044	0.10	1	02/16/2023 17:59

Analyst(s): IGC



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 02/13/2023
Date Analyzed: 02/13/2023
Instrument: IC4
Matrix: Water
Project: Marsh Landing DDS Annual

WorkOrder: 2302815
BatchID: 263627
Extraction Method: E300.1
Analytical Method: E300.1
Unit: mg/L
Sample ID: MB/LCS/LCSD-263627

QC Summary Report for E300.1

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Sulfate	ND	0.031	0.10	-	-	-
Surrogate Recovery						
Malonate	0.099			0.1	99	90-115

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Sulfate	0.99	0.99	1	99	99	85-115	0.359	20
Surrogate Recovery								
Malonate	0.096	0.097	0.10	96	97	90-115	1.01	20



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 02/16/2023
Date Analyzed: 02/16/2023
Instrument: SPECTROPHOTOMETER2
Matrix: Water
Project: Marsh Landing DDSD Annual

WorkOrder: 2302815
BatchID: 263967
Extraction Method: SM4500-S⁻² D-2000
Analytical Method: SM4500 S⁻² D
Unit: mg/L
Sample ID: MB/LCS/LCSD-263967
2302815-001AMS/MSD

QC Summary Report For SM4500 S-2D

Analyte	MB Result	MDL	RL			
Total Sulfide	ND	0.044	0.10	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Total Sulfide	0.46	0.48	0.50	92	96	80-120	4.31	20

Analyte	MS DF	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Total Sulfide	1	0.46	0.42	0.50	ND	92	83	80-120	9.90	20



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 2302815

ClientCode: GOA

QuoteID: 212372

☐ WaterTrax☐ CLIP☐ EDF☐ EQuIS☐ Dry-Weight☒ Email☐ HardCopy☐ ThirdParty☒ J-flag☐ Detection Summary☐ Excel

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: 4501914176
Project: Marsh Landing DDSD Annual

Bill to:

Accounts Payable
NRG
4900 N. Scottsdale Road, Ste. 5000
Scottsdale, AZ 85251
invoices@clearwayenergy.coupahost.co

Requested TAT: 5 days;

Date Received: 02/09/2023

Date Logged: 02/10/2023

Lab ID	ClientSampleID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
2302815-001	FAC Combined Wastewater	Water	2/9/2023 13:30	<input type="checkbox"/>	B	A	A									

Test Legend:

1	300_1_W
5	
9	

2	PRDisposal Fee
6	
10	

3	SULFIDE_W
7	
11	

4	
8	
12	

Project Manager: Susan Thompson

Prepared by: Adrianna Cardoza

Comments: Use QUOTE 212372 for any Marsh Landing projects to get correct analyte list. Always report in mg/L.

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



McC Campbell 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

WORK ORDER SUMMARY

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

Project: Marsh Landing DDSD Annual

Work Order: 2302815

QC Level: LEVEL 2

Date Logged: 2/10/2023

Comments: Use QUOTE 212372 for any Marsh Landing projects to get correct analyte list. Always report in mg/L.

☐ WaterTrax ☐ CLIP ☐ EDF ☐ Excel ☐ EQUIS ☒ Email ☐ HardCopy ☐ ThirdParty ☒ J-flag

LabID	ClientSampID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	U**	Head Space	Dry- Weight	Collection Date & Time	TAT	Test Due Date	Sediment Content	Hold	Sub Out
001A	FAC Combined Wastewater	Water	SM4500S2D (Total Sulfide)	1	250mL HDPE w/ NaOH+ZnAc	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2/9/2023 13:30	5 days	2/16/2023	None	<input type="checkbox"/>	<input type="checkbox"/>
001B	FAC Combined Wastewater	Water	E300.1 (Inorganic Anions) <Sulfate>	1	125mL HDPE, unprsv.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2/9/2023 13:30	5 days	2/16/2023	None	<input type="checkbox"/>	<input type="checkbox"/>

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).

- Organic extracts are held for 40 days before disposal; Inorganic extract are held for 30 days.

- 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.

U** = An unpreserved container was received for a method that suggests a preservation in order to extend hold time for analysis.

2302815


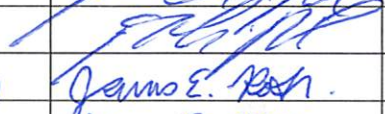
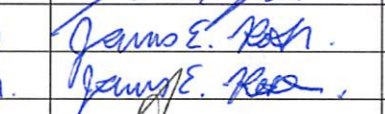
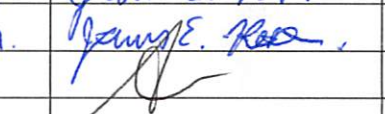
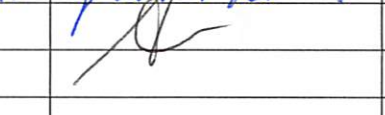
Chain of Custody

Page 1 of 1-Annual

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				ANALYSIS REQUEST			
Laboratory: McCampbell Analytical, Inc. Attention: 1534 Willow Pass Road, Pittsburg, CA 94565-1701 Address: 925.252.9262/ 925.252.9269 Phone/Fax:						Company: Marsh Landing LLC Attention: Accounts Payable Address: invoices@clear-vayenergy.com P.O. No.: 4501914176		Plant: Marsh Landing Title: DDSD Phase: Annual Manager: David Frandsen				Sulfide (E376.2) Sulfate (E300.1)			
SAMPLE INFORMATION								CONTAINER INFORMATION							
Sample Number	Sample Date	Sample Collection Time	Regulatory Driver	Regulatory Frequency	Sample Medium	Sample Type	Sample Description	Number	Type	Volume (each, mL)	Preserv.				
ML-23-031	9-Feb-23	13:30	DDSD	Annual	Wastewater	Grab	FAC Combined Wastewater	1	HDPE Bottle	250	NaOH & ZnAc (ZHS, 4°C)	X	X		
ML-23-032	9-Feb-23	13:30	DDSD	Annual	Wastewater	Grab	FAC Combined Wastewater	1	HDPE Bottle	250	Unpreserved (4°C)	X	X		
HOLDING TIME:												7 days	28 days		
REPORTING			LABORATORY NOTES RE: SAMPLE RECEIPT/CONDITION					DIRECTIONS FOR LABORATORY							
Original to: David Frandsen Title: Environmental Specialist/Engineer Address: P.O. Box 1687 Antioch, CA 94509 Phone/Fax: 925.324-3533/6509 E-mail: david.frandsen@nrg.com E-mail CC: james.robinson@nrg.com joe.moura@nrg.com								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. Please report all results with the units of mg/L. RESULTS AND PRICING PER QUOTE ID: 212372. Include sample description with client sample number ID.							
PRINTED NAME			SIGNATURE					COMPANY		DATE		TIME			
Sampled by: Ryan Robinson.								NRG Energy Services		9-Feb-23		13:30			
Relinquished by: Ryan Robinson.								NRG Energy Services		9-Feb-23		1420			
Received by: James E. Robinson								McC Campbell Analytical, Inc. NRG		9-Feb-23		1420			
Relinquished by: James E. Robinson.								NRG		9-Feb-23		1632			
Received by: Adrianna Caklza										2-9-23		1632			
Relinquished by:															
Received by:															

9.04



Sample Receipt Checklist

Client Name: NRG Energy, LLC
Project: Marsh Landing DDSD Annual

Date and Time Received: 2/9/2023 16:32
Date Logged: 2/10/2023
Received by: Adrianna Cardoza
Logged by: Adrianna Cardoza

WorkOrder №: 2302815 Matrix: Water
Carrier: Client Drop-In

Chain of Custody (COC) Information

Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample IDs noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Date and Time of collection noted by Client on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sampler's name noted on COC?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
COC agrees with Quote?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper containers/bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	NA <input type="checkbox"/>
Samples Received on Ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

(Ice Type: WET ICE)

Sample/Temp Blank temperature	Temp: 4°C		NA <input type="checkbox"/>
ZHS conditional analyses: VOA meets zero headspace requirement (VOCs, TPHg/BTEX, RSK)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
pH acceptable upon receipt (Metal: <2; Nitrate 353.2/4500NO ₃ : <2; 522: <4; 218.7: >8)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

UCMR Samples:

pH tested and acceptable upon receipt (200.7: ≤2; 533: 6 - 8; 537.1: 6 - 8)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>
Free Chlorine tested and acceptable upon receipt (<0.1mg/L) [not applicable to 200.7]?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	NA <input checked="" type="checkbox"/>

Comments:

CALIBRATION DATA RECORD

CUSTOMER Clearway Marsh Landing LLC	PROJECT March 2022 Shutdown
INST. I.D. 0-FT-950002	MANUF. Rosemount
SERVICE Sanitary and Process Wastewater	
MODEL NO: 8732EST2AIN0M4C1Q4	SERIAL NO: 337659
INPUT: 0-80 GAL/MIN	OUTPUT: 4-20 madc
CAL DATA: Tube Cal # 0926 1052 0923 6005	INST. TYPE: magmeter 3"
SENSOR DATA: 0-FE-950002	S/N 0218078
	LOCATION: next to office

TEST EQUIPMENT	MODEL	S/N	NIST TEST
Flowtube Simulator	Rosemount 8714D	326886	208626
Multimeter	Fluke 87	29100150	3817432

INPUT		OUTPUT RESULTS		
%	VALUE	DESIRED	AS FOUND	AS LEFT
0	0 Ft/sec	4 madc	4.000	4.000
10	3 Ft/sec	5.6 madc	5.600	5.600
33.3	10 Ft/sec	9.33 madc	9.334	9.334
100	30 Ft/sec	20 madc	20.002	20.002

ISOLATION VALVE POSITION	AS FOUND: N/A	AS LEFT: N/A
REMARKS: Tube Cal Number 0926105209236005	Calibration Tube Settings 1000015010000000	
Units = GAL/MIN	Calibration Units of measure = Ft/S	
LRV = 0	Cal Analog Output Range: 20mA = 30.00 ft/sec	
URV = 80	Cal Analog Output Zero: 4mA = 0 ft/sec	
Freq = 5 HZ	Cal Freq = 5 HZ	

Reset to customer configuration

PERFORMED BY **D Farley**

DATE: **3/30/2023**

VERIFIED BY

DATE: **3/30/23**

3D Technical Services, Inc.
Clayton, California
(925) 691-5543

Purchase Order: CREDIT CARD



Standard Meter Lab, Inc.

Certificate of Calibration

Cert #: 208626



Intertek

#US4461c

Customer: 3d Technical Services

Contact: Dan Farley

Address: 2270 Curry Canyon Rd. Clayton, Ca 94517

Instrument Identification

System ID: 1051933

Serial #: 0326886

Tool #: NA

Property #: NA

Manufacturer: ROSEMOUNT INC.

Model #: 8714D

Range: (4 to 20) mA DC; (0 to 30) ft/s

Description: SIMULATOR, MAGNETIC FLOW METER

Test Results

Serviced Performed: Calibration

Service Technician: Keith S Lam

Cal Date: 03/22/2023

Cal. Due Date: 03/22/2024

Location of Cal: In-house

Laboratory: Standard Meter Lab

Address: 236 Rickenbacker Cir, Livermore, CA 94551

As Found Result: In Tolerance

As Left Result: In Tolerance

Environmental Conditions: 68.2 °F / 44.2% RH

Instruction Used: MAN-8714D

Technical Remarks

Condition

Received in good condition.

Analysis

Verified accuracy in accordance with the listed calibration instructions.

Calibration Standards

I.D.	Manufacturer	Model Number	Description	Cal. Due Date	NIST #
1000069	FLUKE ELECTRONICS	189	MULTIMETER, TRUE RMS, LOGGING	8/3/2023	198207

Calibrations are performed using standards traceable to NIST. Our calibration system complies with ISO/IEC 17025:2017. This information applies only to the instrument identified above and may not be reproduced, except in full, without prior written consent. The presence of the Intertek logo designates our quality management system is certified to ISO 9001:2015. Reported uncertainties are expressed as expanded values at approximately the 95.45% confidence level using a coverage factor of K=2. There is no implied warranty that the instrument will maintain its specified tolerances during the calibration interval due to possible drift, environment or other factors beyond our control.

Approval Person: Diane P Smith

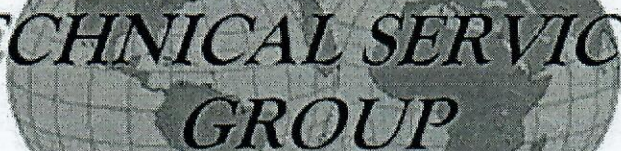
General Manager Signature: *Diane P Smith*

Date: 03/22/2023

Measurement Information

Description	Unit	Nominal	Tolerance -	Tolerance +	As Found	As Left	OT?
500 mA DC Input	mV DC	1.078	1.022	1.133	1.097	1.097	No

End of Report



TECHNICAL SERVICES GROUP

2900 Main St Alameda CA 94501 Phone (510)522-8326 Fax (510)522-3136

Certificate of Calibration

3D TECHNICAL SERVICES

PO BOX 176

CLAYTON

CA

94517

Customer ID #

4459

Certificate Number:

3817432

File #

2071

Rated Accuracy

SEE DATA SHEET

Instrument Type

MULTIMETER

Pass/Fail as Found

PASS

Pass/Fail as Left

PASS

Range

ASSTD.

1st (Mfg) S/N

29100150

Units

MILLIVOLT

Resolution

AS RATED

Mfg.

FLUKE

2nd S/N

N/A

Model

87V

Cal By

REX EDORA 90807

Cal Date

3/3/2023

Cal Due

3/3/2024

Current Cal Cycle (Months)

12

Previous Cal Cycle

12

Notes

Standards Used

FLUKE 515A S/N 10520 DUE
06/23/2023 NIST F30406

TECHNICAL SERVICES GROUP CERTIFIES THAT THIS INSTRUMENT
HAS BEEN CALIBRATED TRACEABLE TO THE NATIONAL INSTITUTE
OF STANDARDS AND TECHNOLOGY AND CONFORMS TO ISO 10012
AND ANSI / NCSL Z-540, UNLESS OTHERWISE SPECIFIED
MEASUREMENT UNCERTAINTIES ARE LESS THAN 1/4 OF TOLERANCE
OR 1 MINOR DIVISION.



CALIBRATION DATA SHEET

2900 Main Street (PO Box 250) Alameda, Ca. 94501
Phone 510 522 8326 or Toll Free 800 300 4TSG Fax 510 522 3136

2900 Main Street (PO Box 250) Alameda, Ca. 94501

Phone 510 522 8326 or Toll Free 800 300 4TSG

Fax 510 522 3136

TECHNICAL SERVICES GROUP		DB #	Customer	TSG Job #	TSG Item #		
Instrument Type		Description & Function					
Manufacturer: FUJIK	Model # 87V	MULTIMETER					
Technician Name & Badge # PRE GUAN 90007	Inspected by Repaired by Calibrated by						
1. Reason submitted	Calibration <input checked="" type="checkbox"/> Repair <input type="checkbox"/> Out of Tolerance <input type="checkbox"/>	2. Physical Condition		Good <input checked="" type="checkbox"/> Damaged <input type="checkbox"/>	1st Serial # 29100150		
3. Instrument Received	In Tolerance <input checked="" type="checkbox"/> Out of Tolerance <input type="checkbox"/>	4. Calibration Procedure		Manufacturer's Specification <input type="checkbox"/> TSG <input checked="" type="checkbox"/>	2nd Serial #		
5. Environment	Temperature 70 Deg. F Relative Humidity 48 %	6. Instrument Returned		In Tolerance <input checked="" type="checkbox"/> Limited <input type="checkbox"/> Repaired <input type="checkbox"/> B.E.R. <input type="checkbox"/>	Recall Date 3-03-23		
List of Calibration Standards		8. Parts Used		Cal Cycle Update			
Manufacturer	Model #	Serial #	Recall Date	9. Discrepancy	Existing Cal Cycle 19K		
FUJIK	57A	10520	6-23-23	Amount			
				10. Corrective Action			
11. Calibration Data <input checked="" type="checkbox"/> Out of Tolerance Parameter <input type="checkbox"/> (Check One)							
Instrument Parameter	Instrument Range	Acceptable Error	Standard Value Applied	Device Under Test Indication	Corrected Indication	Tolerance Initial Final	Applicable NIST Test Report Numbers
DV	AC500	±0.1%	100mV	100.0 mV			73046
			1V	1.000 V			
			10V	10.00V			
			100V	100.0V			
			1kV	1.001 V			
			10V	10.01V			
			100V	100.1V			
			1kV	1.000V			
			1M	1.001MSV			
			100mA	100.0 mA			
			1A	1.00 A			
			10A	10.0 A			
Determination of Impact / Notes							
The Technical Services Group Certifies that this Instrument was Calibrated against Standards Traceable to the National Institute of Standards & Technology, and conforms to ISO 10012-1 & ANSI/NCSLZ 540-1							
TSG Calibration Supervisor / Quality Assurance Supervisor							