

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION**

**AMENDING MONITORING AND REPORTING PROGRAM NO. 6112
for
CITY OF LOS ANGELES, DEPARTMENT OF WATER AND POWER
(CASTAIC POWER PLANT)**

**ORDER NO. R4-2010-0181
(Amending Order No. R4-2007-0025)
(NPDES PERMIT NO. CA0055824)**

I. Reporting Requirements

- A. City of Los Angeles Department of Water and Power, Castaic Power Plant (hereinafter Castaic or Discharger) shall implement this amended monitoring program on the effective date of this Order. All monitoring reports shall be submitted quarterly and must be received by the Regional Board by the dates in the following schedule. All monitoring reports should be addressed to the Regional Board, Attention: Information Technology Unit. The first monitoring report under this Program is due by February 1, 2011.

Reporting Period	Report Due
July-September	November 1
October-December	February 1
January – March	May 1
April – June	August 1
Annual Summary Report	March 1

If there is no discharge during any reporting period, the report shall so state.

- B. The Discharger shall submit an annual summary report (for both dry and wet weather discharges), containing a discussion of the previous year's effluent and receiving water monitoring data, as well as graphical and tabular summaries of the data. The data shall be submitted to the Regional Board on hard copy and on a 3 1/2" computer diskette or a CD-ROM. Submitted data must be IBM compatible, preferably using EXCEL software. This annual report is to be received by the Regional Board by March 1 of each year following the calendar year of data collection.
- C. Each monitoring report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-

compliance with waste discharge requirements, as well as all excursions of effluent limitations.

- D. The Discharger shall inform the Regional Board well in advance of any proposed construction activity that could potentially affect compliance with applicable requirements.

II. Effluent Monitoring Requirements

- A. A sampling station shall be established for each point of discharge and shall be located where representative samples of that effluent can be obtained. The Discharger shall collect representative samples for the discharge through the following Outfalls: a) NPDES Discharge Serial No. 001 (Latitude 33°38'49", Longitude 118°45'43") from Elderberry Forebay to Pyramid Lake; b) NPDES Discharge Serial No. 002 (Latitude 34°33'34", Longitude 118°37'53") from Elderberry Forebay to Castaic Lake; c) Discharge Serial No. 003 located at Elderberry Forebay¹ for discharges from the Unit 7 tailrace to Elderberry Forebay; d) Discharge Serial No. 004 for discharges from the oil-water separator, prior to discharge to Elderberry Forebay; d) Discharge Serial No. 005 for the combined discharges from the compressor coolers and after cooler, industrial use, and seal drain, gallery drain, and dewatering sumps, prior to discharge to Elderberry Forebay; and e) Discharge Serial No. 006 for discharges from backwash water from the potable water system, prior to discharge Elderberry Forebay.
- B. This Regional Board shall be notified in writing of any change in the sampling stations once established or in the methods for determining the quantities of pollutants in the individual waste streams.
- C. Pollutants shall be analyzed using the analytical methods described in 40 CFR sections 136.3, 136.4, and 136.5 (revised March 12, 2010); or, where no methods are specified for a given pollutant, by methods approved by this Regional Board or the State Board.

The monitoring reports shall specify the analytical method used the Method Detection Limit (MDL), and the Minimum Level (ML) for each pollutant. For the purpose of reporting compliance with numerical limitations, performance goals, and receiving water limitations, analytical data shall be reported by one of the following methods, as appropriate:

1. An actual numerical value for sample results greater than or equal to the ML; or,

¹ The sampling location for Discharge Serial No. 003 is located at Elderberry Forebay due to safety reasons.

2. "Detected, but Not Quantified (DNQ)" if results are greater than or equal to the laboratory's MDL but less than the ML; or,
3. "Not-Detected (ND)" for sample results less than the laboratory's MDL with the MDL indicated for the analytical method used.

Current MLs (Attachment A) are those published by the State Water Resources Control Board in the *Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, March 2, 2000*.

- D. Where possible, the MLs employed for effluent analyses shall be lower than the permit limitations established for a given parameter. If the ML value is not below the effluent limitation, then the lowest ML value and its associated analytical method shall be selected for compliance purposes. At least once a year, the Discharger shall submit a list of the analytical methods employed for each test and associated laboratory QA/QC procedures.

The Regional Board, in consultation with the State Board Quality Assurance Program, shall establish an ML that is not contained in Attachment A to be included in the Discharger's permit in any of the following situations:

1. When the pollutant under consideration is not included in Attachment A;
2. When the Discharger and Regional Board agree to include in the permit a test method that is more sensitive than that specified in 40 CFR Part 136 (revised March 12, 2010);
3. When the Discharger agrees to use an ML that is lower than that listed in Attachment A;
4. When the Discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Attachment A, and proposes an appropriate ML for their matrix; or,
5. When the Discharger uses a method whose quantification practices are not consistent with the definition of an ML. Examples of such methods are the USEPA-approved method 1613 for dioxins and furans, method 1624 for volatile organic substances, and method 1625 for semi-volatile organic substances. In such cases, the Discharger, the Regional Board, and the State Board shall agree on a lowest quantifiable limit and that limit will substitute for the ML for reporting and compliance determination purposes.

- E. Laboratory analyses – all chemical, bacteriological, and toxicity analyses shall be conducted at a laboratory certified for such analyses by the California Department of Health Services Environmental Laboratory Accreditation Program (ELAP). A copy of the laboratory certification shall be submitted with the Annual Report.
- F. Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 CFR Section 136.3. All QA/QC items must be run on the same dates the samples were actually analyzed, and the results shall be reported in the Regional Board format, when it becomes available, and submitted with the laboratory reports. Proper chain of custody procedures must be followed, and a copy of the chain of custody shall be submitted with the report.
- G. All analyses shall be accompanied by the chain of custody, including but not limited to data and time of sampling, sample identification, and name of person who performed sampling, date of analysis, name of person who performed analysis, QA/QC data, method detection limits, analytical methods, copy of laboratory certification, and a perjury statement executed by the person responsible for the laboratory.
- H. Quarterly effluent analyses shall be performed during the months of February, May, August, and November. Annual effluent analyses shall be performed during the month of February.
- I. For parameters for which both monthly average and daily maximum limits are specified and the monitoring frequency is less than four times a month, the following shall apply. If an analytical result is greater than the monthly average limit, the sampling frequency shall be increased (within one week of receiving the test results) to a minimum of once weekly at equal intervals, until at least four consecutive weekly samples have been obtained, and compliance with the monthly average limit has been demonstrated. The Discharger shall provide for the approval of the Executive Officer a program to ensure future compliance with the monthly average limit.

III. Effluent Monitoring Program

- A. This Order requires that sampling for effluent monitoring for Discharge Serial No. 001 shall be conducted at the point of discharge to Pyramid Lake. This point is far away from the plant and at approximately 294 feet below water. For compliance purposes, the current monitoring location is assumed to be equivalent to the point of discharge to Pyramid Lake. The following shall constitute the effluent monitoring

program for NPDES **Discharge Serial No. 001** from Elderberry Forebay to Pyramid Lake:

Constituent	Units	Type of Sample	Sampling Frequency
Total waste flow	gal/day	----	Daily
PH	standard units	Grab	Weekly
Temperature	° F	Grab	Weekly
Dissolved oxygen	mg/L	Grab	Weekly
Settleable solids	ml/L	Grab	Quarterly
Suspended solids	mg/L	Grab	Quarterly
Turbidity	NTU	Grab	Quarterly
Bis(2-ethylhexyl)phthalate	µg/L	Grab	Quarterly ¹
Dieldrin	µg/L	Grab	Annually
PCBs	µg/L	Grab	Once during year 1 of permit term
Remaining Priority Pollutants ^{2,3}	µg/L	Grab	Annually

¹ Quarterly monitoring will be required for the first year of the permit, after which monitoring frequency will be required annually.

² All metals shall be reported as total recoverable.

³ The Discharger must monitor the effluent for the presence of the 17 congeners of 2,3,7,8-TCDD listed in Section V of this *M&RP*, twice during the permit term (once during the 2nd year of the permit and once during the 4th year). You must report for each congener the analytical results of the effluent monitoring, including the quantifiable limit and the Method Detection Limit (MDL), and the measured or estimated concentration. The Discharger must multiply each measured or estimated congener concentration by its respective Toxicity Equivalent Factors (TEFs) and report the sum of these values..

B. The following shall constitute the effluent monitoring program for NPDES **Discharge Serial No. 002** (Latitude 34°33'34", Longitude 118°37'53") from Elderberry Forebay to Castaic Lake:

Constituent	Units	Type of Sample	Sampling Frequency
Total waste flow	gal/day	----	Daily
pH	standard units	Grab	Weekly
Temperature	° F	Grab	Weekly
Dissolved oxygen	mg/L	Grab	Weekly
Settleable solids	ml/L	Grab	Quarterly
Suspended solids	mg/L	Grab	Quarterly
Turbidity	NTU	Grab	Quarterly
Bis(2-ethylhexyl)phthalate	µg/L	Grab	Quarterly ¹
Dieldrin	µg/L	Grab	Quarterly ¹

¹ Quarterly monitoring will be required for the first year of the permit, after which monitoring frequency will be required annually.

- C. This Order requires that sampling for effluent monitoring for the Unit 7 Tailrace. The following shall constitute the effluent monitoring program for discharges through **Discharge Serial No. 003**. The sampling location is located at Elderberry Forebay due to safety reason:

Constituent	Units	Type of Sample	Sampling Frequency
Total waste flow	gal/day	----	Daily
pH	standard units	Grab	Weekly
Temperature	° F	Grab	Weekly
Dissolved oxygen	mg/L	Grab	Weekly
Settleable solids	ml/L	Grab	Quarterly
Suspended solids	mg/L	Grab	Quarterly
Turbidity	NTU	Grab	Quarterly
PCBs	µg/L	Grab	Once during year 1 of permit term
Bis(2-ethylhexyl)phthalate	µg/L	Grab	Quarterly ¹
Dieldrin	µg/L	Grab	Quarterly ¹
Acute Toxicity ²	% survival	Grab	Annually
Remaining Priority Pollutants ^{3,4}	µg/L	Grab	Annually

¹ Quarterly monitoring is required for the first year of the permit term, after which the frequency is reduced to annual.

² Monitoring shall be conducted in accordance with Section IV of this *MRP*.

³ All metals shall be reported as total recoverable.

⁴ The Discharger must monitor the effluent for the presence of the 17 congeners of 2,3,7,8-TCDD listed in Section V of this *M&RP*, twice during the permit term (once during the 2nd year of the permit and once during the 4th year). You must report for each congener the analytical results of the effluent monitoring, including the quantifiable limit and the Method Detection Limit (MDL), and the measured or estimated concentration. The Discharger must multiply each measured or estimated congener concentration by its respective Toxicity Equivalent Factors (TEFs) and report the sum of these values.

- D. The following shall constitute the effluent monitoring program for discharges from **Discharge Serial No. 004** (oil-water separator) prior to discharge to Elderberry Forebay:

Constituent	Units	Type of Sample	Sampling Frequency
Total waste flow	gal/day	----	Monthly
Oil and grease	mg/L	Grab	Quarterly
BOD ₅ 20°C	mg/L	Grab	Quarterly
pH	Standard units	Grab	Quarterly
Temperature	° F	Grab	Quarterly
Settleable solids	ml/L	Grab	Quarterly
Suspended solids	mg/L	Grab	Quarterly
Turbidity	mg/L	Grab	Quarterly
PCBs	µg/L	Grab	Once during year 1 of permit term
Bis(2-ethylhexyl)phthalate	µg/L	Grab	Quarterly ¹
Dieldrin	µg/L	Grab	Quarterly ¹

Constituent	Units	Type of Sample	Sampling Frequency
Acute Toxicity ²	% survival	Grab	Annually
Remaining Priority Pollutants ^{3,4}	µg/L	Grab	Annually

¹ Quarterly monitoring is required for the first year of the permit term, after which the frequency is reduced to annual.

² Monitoring shall be conducted in accordance with Section IV of this *MRP*.

³ All metals shall be reported as total recoverable.

⁴ The Discharger must monitor the effluent for the presence of the 17 congeners of 2,3,7,8-TCDD listed in Section V of this *M&RP*, twice during the permit term (once during the 2nd year of the permit and once during the 4th year). You must report for each congener the analytical results of the effluent monitoring, including the quantifiable limit and the Method Detection Limit (MDL), and the measured or estimated concentration. The Discharger must multiply each measured or estimated congener concentration by its respective Toxicity Equivalent Factors (TEFs) and report the sum of these values.

- E. This Order requires that sampling for effluent monitoring for the combined discharges from the compressor coolers and after cooler, industrial use, and seal drain, gallery drain, and dewatering sumps shall be conducted at a point after the combination of wastewaters from the compressor coolers, industrial uses, compressor after cooler, seal drain sump, gallery drain sump, and dewatering sump. The following shall constitute the effluent monitoring program for discharges from **Discharge Serial No. 005** (combined discharges from the compressor coolers and after cooler, industrial use, and seal drain, gallery drain, and dewatering sumps) prior to discharge to Elderberry Forebay:

Constituent	Units	Type of Sample	Sampling Frequency
Total waste flow	gal/day	----	Daily
Oil and grease	mg/L	Grab	Quarterly
BOD ₅ 20°C	mg/L	Grab	Quarterly
pH	Standard units	Grab	Quarterly
Temperature	° F	Grab	Quarterly
Settleable solids	ml/L	Grab	Quarterly
Suspended solids	mg/L	Grab	Quarterly
Turbidity	mg/L	Grab	Quarterly
PCBs	µg/L	Grab	Once during year 1 of permit term
Bis(2-ethylhexyl)phthalate	µg/L	Grab	Quarterly ¹
Dieldrin	µg/L	Grab	Quarterly ¹
Acute Toxicity ²	% survival	Grab	Annually
Remaining Priority Pollutants ^{3,4}	µg/L	Grab	Annually

¹ Quarterly monitoring is required for the first year of the permit term, after which the frequency is reduced to annual.

² Monitoring shall be conducted in accordance with Section IV of this *MRP*.

³ All metals shall be reported as total recoverable.

⁴ The Discharger must monitor the effluent for the presence of the 17 congeners of 2,3,7,8-TCDD listed in Section V of this *M&RP*, twice during the permit term (once during the 2nd year of the permit and once during the 4th year). You must report for each congener the analytical results of the effluent monitoring, including the quantifiable limit and the Method Detection Limit (MDL), and the measured or estimated concentration. The Discharger must multiply each measured or estimated congener concentration by its respective Toxicity Equivalent Factors (TEFs) and report the sum of these values.

- F. This Order requires that sampling for effluent monitoring for the backwash water from the potable water system. The following shall constitute the effluent monitoring program for discharges from **Discharge Serial No. 006** prior to discharge to Elderberry Forebay:

Constituent	Units	Type of Sample	Sampling Frequency
Total waste flow	gal/day	----	Monthly
Oil and grease	mg/L	Grab	Quarterly
BOD ₅ 20°C	mg/L	Grab	Quarterly
pH	Standard units	Grab	Quarterly
Temperature	° F	Grab	Quarterly
Settleable solids	ml/L	Grab	Quarterly
Suspended solids	mg/L	Grab	Quarterly
Turbidity	mg/L	Grab	Quarterly
Residual chlorine	mg/L	Grab	Quarterly
Methylene blue activated substances (MBAS)	mg/L	Grab	Quarterly
Copper ¹	µg/L	Grab	Quarterly
Lead ¹	µg/L	Grab	Quarterly
Zinc ¹	µg/L	Grab	Quarterly
Dichlorobrometnane	µg/L	Grab	Quarterly
Acute Toxicity ²	% survival	Grab	Annually
Remaining Priority Pollutants ^{1,3}	µg/L	Grab	Annually

¹ All metals shall be reported as total recoverable.

² Monitoring shall be conducted in accordance with Section IV of this *MRP*.

³ The Discharger must monitor the effluent for the presence of the 17 congeners of 2,3,7,8-TCDD listed in Section V of this *M&RP*, twice during the permit term (once during the 2nd year of the permit and once during the 4th year). You must report for each congener the analytical results of the effluent monitoring, including the quantifiable limit and the Method Detection Limit (MDL), and the measured or estimated concentration. The Discharger must multiply each measured or estimated congener concentration by its respective Toxicity Equivalent Factors (TEFs) and report the sum of these values.

IV. Acute Toxicity Monitoring

A. Acute Toxicity Effluent Monitoring Program

The Discharger shall conduct acute toxicity tests on effluent grab samples by methods specified in 40 CFR Part 136 which cites U.S. EPA's *Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms*, Fifth Edition, October, 2002 (EPA/821-R-02-012) or a more recent edition to ensure there is no toxicity in 100 % effluent, for discharges from Discharge Serial Nos. 003, 004, 005, and 006.

The fathead minnow, *Pimephales promelas*, shall be used as the test species for fresh water discharges and the topsmelt, *Atherinops affinis*, shall be used as the test species for brackish effluent. The method for topsmelt is found in U.S. EPA's

Short-term Method for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms, Third Edition, October 2002 (EPA/821-R-02-014).

In lieu of conducting the standard acute toxicity testing with the fathead minnow, the Discharger may elect to report the results or endpoint from the first 48 hours of the chronic toxicity test as the results of the acute toxicity test.

Effluent samples from Discharge Serial Nos. 003, 004, 005, and 006 shall be collected after all treatment processes and before discharge to the receiving water.

B. Quality Assurance

Concurrent testing with a reference toxicant shall be conducted. Reference toxicant tests shall be conducted using the same test conditions as the effluent toxicity tests (e.g., same test duration, etc).

If either the reference toxicant test or effluent test does not meet all test acceptability criteria (TAC) as specified in the test methods manuals (EPA/821-R-02-013 and EPA/821-R-02-014), then the Discharger must re-sample and re-test at the earliest time possible.

Control and dilution water should be receiving water or laboratory water, as appropriate, as described in the manual. If the dilution water used is different from the culture water, a second control using culture water shall be used.

C. Reporting

1. The Discharger shall submit a full report of the toxicity test results. Test results shall be reported as % survival with the discharge monitoring reports (DMR) for the month in which the test is conducted.
2. If an initial investigation indicates the source of toxicity and accelerated testing is unnecessary, then those results also shall be submitted with the DMR for the period in which the investigation occurred.
 - a. The full report shall be submitted on or before the end of the month in which the DMR is submitted.
 - b. The full report shall consist of (1) the results for each sample collected and (2) the dates of sample collection and initiation of each toxicity test.

3. Test results for toxicity tests also shall be reported according to the appropriate manual chapter on Report Preparation and shall be attached to the DMR. Routine reporting shall include, at a minimum, as applicable, for each test:
 - a. Sample date(s);
 - b. Test initiation date;
 - c. Test species;
 - d. End point values for each dilution (e.g., number of young, growth rate, percent survival);
 - e. Mean percent mortality (\pm standard deviation) after 96 hours in 100% effluent (if applicable);
 - f. NOEC and LOEC values for reference toxicant test(s);
 - g. C₂₅ value for reference toxicant test(s);
 - h. Any applicable charts; and
 - i. Available water quality measurements for each test (e.g., pH, D.O., temperature, conductivity, hardness, salinity, ammonia).

V. Receiving Water and TCDD Monitoring for Reasonable Potential Determination

The *Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (March 2, 2000) requires that the Regional Boards require periodic monitoring for pollutants for which criteria or objectives apply and for which no effluent limitations have been established. Accordingly, the Discharger is required to conduct receiving water monitoring of the priority pollutants as listed below. Receiving water samples shall be collected upstream of the effluent discharge point in the receiving water outside the influence of the discharge. Where feasible receiving water sample should be collected 50 feet upstream of the discharge point of discharge into Pyramid Lake. If, for safety reasons, a sample cannot be obtained during a sampling period, a sample shall be obtained at the first safe opportunity, and the reason for the delay shall be included in the report. Further, the Discharger must analyze pH and hardness of the receiving water at the same time as priority pollutants.

The required monitoring frequency and type of sample for pH, hardness, and toxic pollutants are listed below.

Constituent	Units	Type of Sample	Monitoring Frequency
pH	standard units	Grab	Annually
Hardness (as CaCO ₃)	mg/L	Grab	Annually
PAHs	µg/L	Grab	Annually
Antimony	µg/L	Grab	Annually
Arsenic	µg/L	Grab	Annually
Beryllium	µg/L	Grab	Annually

Constituent	Units	Type of Sample	Monitoring Frequency
Cadmium ¹	µg/L	Grab	Annually
Chromium (III) ¹	µg/L	Grab	Annually
Chromium (VI) ¹	µg/L	Grab	Annually
Copper ¹	µg/L	Grab	Annually
Lead ¹	µg/L	Grab	Annually
Mercury	µg/L	Grab	Annually
Nickel ¹	µg/L	Grab	Annually
Selenium	µg/L	Grab	Annually
Silver ¹	µg/L	Grab	Annually
Thallium	µg/L	Grab	Annually
Zinc ¹	µg/L	Grab	Annually
Cyanide	µg/L	Grab	Annually
Asbestos	Fibers/L	Grab	Annually
Acrolein	µg/L	Grab	Annually
Acrylonitrile	µg/L	Grab	Annually
Benzene	µg/L	Grab	Annually
Bromoform	µg/L	Grab	Annually
Carbon tetrachloride	µg/L	Grab	Annually
Chlorobenzene	µg/L	Grab	Annually
Chlorodibromomethane	µg/L	Grab	Annually
Chloroethane	µg/L	Grab	Annually
2-Chloroethylvinyl ether	µg/L	Grab	Annually
Chloroform	µg/L	Grab	Annually
Dichlorobromomethane	µg/L	Grab	Annually
1,1-Dichloroethane	µg/L	Grab	Annually
1,2-Dichloroethane	µg/L	Grab	Annually
1,1-Dichloroethylene	µg/L	Grab	Annually
1,2-Dichloropropane	µg/L	Grab	Annually
1,3-Dichloropropylene	µg/L	Grab	Annually
Ethylbenzene	µg/L	Grab	Annually
Methyl bromide	µg/L	Grab	Annually
Methyl chloride	µg/L	Grab	Annually
Methylene chloride	µg/L	Grab	Annually
1,1,2,2-Tetrachloroethane	µg/L	Grab	Annually
Tetrachloroethylene	µg/L	Grab	Annually
Toluene	µg/L	Grab	Annually
1,2-Trans-dichloroethylene	µg/L	Grab	Annually
1,1,1-Trichloroethane	µg/L	Grab	Annually
1,1,2-Trichloroethane	µg/L	Grab	Annually
Trichloroethylene	µg/L	Grab	Annually
Vinyl chloride	µg/L	Grab	Annually
2-Chlorophenol	µg/L	Grab	Annually
2,4-Dichlorophenol	µg/L	Grab	Annually
2,4-Dimethylphenol	µg/L	Grab	Annually
2-Methyl-4,6-Dinitrophenol	µg/L	Grab	Annually
2,4-Dinitrophenol	µg/L	Grab	Annually
2-Nitrophenol	µg/L	Grab	Annually

Constituent	Units	Type of Sample	Monitoring Frequency
4-Nitrophenol	µg/L	Grab	Annually
3-Methyl-4-Chlorophenol	µg/L	Grab	Annually
Pentachlorophenol	µg/L	Grab	Annually
Phenol	µg/L	Grab	Annually
2,4,6-Trichlorophenol	µg/L	Grab	Annually
Acenaphthene	µg/L	Grab	Annually
Acenaphthylene	µg/L	Grab	Annually
Anthracene	µg/L	Grab	Annually
Benzidine	µg/L	Grab	Annually
Benzo(a)Anthracene	µg/L	Grab	Annually
Benzo(a)Pyrene	µg/L	Grab	Annually
Benzo(b)Fluoranthene	µg/L	Grab	Annually
Benzo (g,h,i)Perylene	µg/L	Grab	Annually
Benzo(k)Fluoranthene	µg/L	Grab	Annually
Bis (2-Chloroethoxy)Methane	µg/L	Grab	Annually
Bis(2-Chloroethyl)Ether	µg/L	Grab	Annually
Bis (2-Chloroisopropyl)Ether	µg/L	Grab	Annually
4-Bromophenyl Phenyl Ether	µg/L	Grab	Annually
Butylbenzyl Phthalate	µg/L	Grab	Annually
2-Chloronaphthalene	µg/L	Grab	Annually
4-Chlorophenyl Phenyl Ether	µg/L	Grab	Annually
Chrysene	µg/L	Grab	Annually
Dibenzo(a,h)Anthracene	µg/L	Grab	Annually
1,2-Dichlorobenzene	µg/L	Grab	Annually
1,3-Dichlorobenzene	µg/L	Grab	Annually
1,4-Dichlorobenzene	µg/L	Grab	Annually
3,3'-Dichlorobenzidine	µg/L	Grab	Annually
Diethyl Phthalate	µg/L	Grab	Annually
Dimethyl Phthalate	µg/L	Grab	Annually
Di-n-Butyl Phthalate	µg/L	Grab	Annually
2,4-Dinitrotoluene	µg/L	Grab	Annually
2,6-Dinitrotoluene	µg/L	Grab	Annually
Di-n-Octyl Phthalate	µg/L	Grab	Annually
1,2-Diphenylhydrazine	µg/L	Grab	Annually
Fluoranthene	µg/L	Grab	Annually
Fluorene	µg/L	Grab	Annually
Hexachlorobenzene	µg/L	Grab	Annually
Hexachlorobutadiene	µg/L	Grab	Annually
Hexachlorocyclopentadiene	µg/L	Grab	Annually
Hexachloroethane	µg/L	Grab	Annually
Indeno(1,2,3-cd)Pyrene	µg/L	Grab	Annually
Isophorone	µg/L	Grab	Annually
Naphthalene	µg/L	Grab	Annually
Nitrobenzene	µg/L	Grab	Annually
N-Nitrosodimethylamine	µg/L	Grab	Annually
N-Nitrosodi-n-Propylamine	µg/L	Grab	Annually
N-Nitrosodiphenylamine	µg/L	Grab	Annually

Constituent	Units	Type of Sample	Monitoring Frequency
Phenanthrene	µg/L	Grab	Annually
Pyrene	µg/L	Grab	Annually
1,2,4-Trichlorobenzene	µg/L	Grab	Annually
Aldrin	µg/L	Grab	Annually
alpha-BHC	µg/L	Grab	Annually
beta-BHC	µg/L	Grab	Annually
Gamma-BHC	µg/L	Grab	Annually
delta-BHC	µg/L	Grab	Annually
Chlordane	µg/L	Grab	Annually
4,4'-DDT	µg/L	Grab	Annually
4,4'-DDE	µg/L	Grab	Annually
4,4'-DDD	µg/L	Grab	Annually
Dieldrin	µg/L	Grab	Annually
alpha-Endosulfan	µg/L	Grab	Annually
beta-Endosulfan	µg/L	Grab	Annually
Endosulfan Sulfate	µg/L	Grab	Annually
Endrin	µg/L	Grab	Annually
Endrin Aldehyde	µg/L	Grab	Annually
Heptachlor	µg/L	Grab	Annually
Heptachlor Epoxide	µg/L	Grab	Annually
PCBs – sum ²	µg/L	Grab	Annually
Toxaphene	µg/L	Grab	Annually

¹ Measured as total recoverable.

² PCBs sum refers to sum of PCB Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260.

TCDD Monitoring:

In accordance with Section 3 of the SIP, the Discharger is also required to conduct effluent/receiving water monitoring for the presence of the 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD or Dioxin) congeners. The monitoring shall be a grab sample twice during the permit term (once during the 2nd year of the permit and once during the 4th year). The SIP requires monitoring for 2,3,7,8-TCDD and the 16 congeners listed in the table below. The Discharger is required to calculate Toxic Equivalence (TEQ) for each congener by multiplying its analytical concentration by the appropriate Toxicity Equivalence Factors (TEF) provided below.

Congeners	TEF
2,3,7,8-tetra CDD	1.0
1,2,3,7,8-penta CDD	1.0
1,2,3,4,7,8-hexa CDD	0.1
1,2,3,6,7,8-hexa CDD	0.1
1,2,3,7,8,9-hexa CDD	0.1
1,2,3,4,6,7,8-hepta CDD	0.01
Octa CDD	0.0001
2,3,7,8-tetra CDF	0.1

Congeners	TEF
1,2,3,7,8-penta CDF	0.05
2,3,4,7,8-penta CDF	0.5
1,2,3,4,7,8-hexa CDF	0.1
1,2,3,6,7,8-hexa CDF	0.1
1,2,3,7,8,9-hexa CDF	0.1
2,3,4,6,7,8-hexa CDF	0.1
1,2,3,4,6,7,8-hepta CDF	0.01
1,2,3,4,7,8,9-hepta CDF	0.01
Octa CDF	0.0001

Monitoring data shall be submitted in accordance with the reporting schedule in Section I.A. of this *M&RP*.

The Discharger may submit priority pollutant data as results of the analyses of water samples collected from Pyramid Lake by the Department of Water Resources (DWR), the Metropolitan Water District (MWD), and/or other entities acting in behalf of agencies collecting data as required in the NPDES program, in lieu of conducting the receiving water monitoring of the priority pollutants listed above. The laboratory analytical data shall include applicable analytical methods used, minimum levels, method detection limits, quality assurance/quality control (QA/QC) data, chain of custody, including but not limited to data and time of sampling, sample identification, and name of person who performed sampling, date of analysis, name of person who performed analysis, copy of laboratory certification, and a perjury statement executed by the person responsible for the laboratory.

VI. Receiving Water Monitoring

In addition to the requirements for monitoring the receiving water described in section V above, Castaic will be required to perform general observations of the receiving water when discharges occur and report the observations in the quarterly monitoring report. The receiving water monitoring program shall consist of periodic surveys of receiving water and shall include studies of those physical-chemical characteristics of the receiving water that may be impacted by the discharge.

Receiving Water Observations. General observations of the receiving water shall be made at each discharge point on a monthly basis and shall be reported in the quarterly monitoring report. If no discharge occurred during the observation period, this shall be reported.

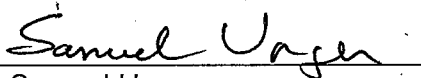
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Castaic Power Plant
Amending Monitoring and
Reporting Program No. 6112

CA0055824
Order No. R4-2010-0181

Observations shall be descriptive where applicable, such that colors, approximate amounts, or types of materials are apparent. The following observations shall be made:

Time, and date of monitoring
Weather conditions
Color of water
Appearance of oil films or grease, or floatable materials
Extent of visible turbidity or color patches
Description of odor, if any, of the receiving water
Presence and activity of California Least Tern and California Brown Pelican.

Ordered by:



Samuel Unger
Executive Officer

Date: October 7, 2010

SWRCB Minimum Levels in ppb ($\mu\text{g/L}$)

The Minimum Levels (MLs) in this appendix are for use in reporting and compliance determination purposes in accordance with section 2.4 of the State Implementation Policy. These MLs were derived from data for priority pollutants provided by State certified analytical laboratories in 1997 and 1998. These MLs shall be used until new values are adopted by the SWRCB and become effective. The following tables (Tables 2a - 2d) present MLs for four major chemical groupings: volatile substances, semi-volatile substances, inorganics, and pesticides and PCBs.

Table 2a - VOLATILE SUBSTANCES*	GC	GCMS
1,1 Dichloroethane	0.5	1
1,1 Dichloroethylene	0.5	2
1,1,1 Trichloroethane	0.5	2
1,1,2 Trichloroethane	0.5	2
1,1,2,2 Tetrachloroethane	0.5	1
1,2 Dichlorobenzene (volatile)	0.5	2
1,2 Dichloroethane	0.5	2
1,2 Dichloropropane	0.5	1
1,3 Dichlorobenzene (volatile)	0.5	2
1,3 Dichloropropene (volatile)	0.5	2
1,4 Dichlorobenzene (volatile)	0.5	2
Acrolein	2.0	5
Acrylonitrile	2.0	2
Benzene	0.5	2
Bromoform	0.5	2
Methyl Bromide	1.0	2
Carbon Tetrachloride	0.5	2
Chlorobenzene	0.5	2
Chlorodibromo-methane	0.5	2
Chloroethane	0.5	2
Chloroform	0.5	2
Chloromethane	0.5	2
Dichlorobromo-methane	0.5	2
Dichloromethane	0.5	2
Ethylbenzene	0.5	2
Tetrachloroethylene	0.5	2
Toluene	0.5	2
Trans-1,2 Dichloroethylene	0.5	1
Trichloroethene	0.5	2
Vinyl Chloride	0.5	2

*The normal method-specific factor for these substances is 1; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.

Table 2b - SEMI-VOLATILE SUBSTANCES*	GC	GCMS	LC	COLOR
Benzo (a) Anthracene	10	5		
1,2 Dichlorobenzene (semivolatile)	2	2		
1,2 Diphenylhydrazine		1		
1,2,4 Trichlorobenzene	1	5		
1,3 Dichlorobenzene (semivolatile)	2	1		
1,4 Dichlorobenzene (semivolatile)	2	1		
2 Chlorophenol	2	5		
2,4 Dichlorophenol	1	5		
2,4 Dimethylphenol	1	2		
2,4 Dinitrophenol	5	5		
2,4 Dinitrotoluene	10	5		
2,4,6 Trichlorophenol	10	10		
2,6 Dinitrotoluene		5		
2- Nitrophenol		10		
2-Chloroethyl vinyl ether	1	1		
2-Chloronaphthalene		10		
3,3' Dichlorobenzidine		5		
Benzo (b) Fluoranthene		10	10	
3-Methyl-Chlorophenol	5	1		
4,6 Dinitro-2-methylphenol	10	5		
4- Nitrophenol	5	10		
4-Bromophenyl phenyl ether	10	5		
4-Chlorophenyl phenyl ether		5		
Acenaphthene	1	1	0.5	
Acenaphthylene		10	0.2	
Anthracene		10	2	
Benzidine		5		
Benzo(a) pyrene		10	2	
Benzo(g,h,i)perylene		5	0.1	
Benzo(k)fluoranthene		10	2	
bis 2-(1-Chloroethoxyl) methane		5		
bis(2-chloroethyl) ether	10	1		
bis(2-Chloroisopropyl) ether	10	2		
bis(2-Ethylhexyl) phthalate	10	5		
Butyl benzyl phthalate	10	10		
Chrysene		10	5	
di-n-Butyl phthalate		10		
di-n-Octyl phthalate		10		
Dibenzo(a,h)-anthracene		10	0.1	
Diethyl phthalate	10	2		
Dimethyl phthalate	10	2		
Fluoranthene	10	1	0.05	
Fluorene		10	0.1	

Attachment A - continued

Table 2b - SEMI-VOLATILE SUBSTANCES*	GC	GCMS	LC	COLOR
Hexachloro-cyclopentadiene	5	5		
Hexachlorobenzene	5	1		
Hexachlorobutadiene	5	1		
Hexachloroethane	5	1		
Indeno(1,2,3,cd)-pyrene		10	0.05	
Isophorone	10	1		
N-Nitroso diphenyl amine	10	1		
N-Nitroso-dimethyl amine	10	5		
N-Nitroso -di n-propyl amine	10	5		
Naphthalene	10	1	0.2	
Nitrobenzene	10	1		
Pentachlorophenol	1	5		
Phenanthrene		5	0.05	
Phenol **	1	1		50
Pyrene		10	0.05	

* With the exception of phenol by colorimetric technique, the normal method-specific factor for these substances is 1,000; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance multiplied by 1,000.

** Phenol by colorimetric technique has a factor of 1.

Table 2c – INORGANICS*	FAA	GFAA	ICP	ICPMS	SPGFAA	HYDRIDE	CVAA	COLOR	DCP
Antimony	10	5	50	0.5	5	0.5			1,000
Arsenic		2	10	2	2	1		20	1,000
Beryllium	20	0.5	2	0.5	1				1,000
Cadmium	10	0.5	10	0.25	0.5				1,000
Chromium (total)	50	2	10	0.5	1				1,000
Chromium VI	5							10	
Copper	25	5	10	0.5	2				1,000
Cyanide								5	
Lead	20	5	5	0.5	2				10,000
Mercury				0.5			0.2		
Nickel	50	5	20	1	5				1,000
Selenium		5	10	2	5	1			1,000
Silver	10	1	10	0.25	2				1,000
Thallium	10	2	10	1	5				1,000
Zinc	20		20	1	10				1,000

* The normal method-specific factor for these substances is 1; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.

Table 2d – PESTICIDES – PCBs*	GC
4,4'-DDD	0.05
4,4'-DDE	0.05
4,4'-DDT	0.01
a-Endosulfan	0.02
alpha-BHC	0.01
Aldrin	0.005
b-Endosulfan	0.01
Beta-BHC	0.005
Chlordane	0.1
Delta-BHC	0.005
Dieldrin	0.01
Endosulfan Sulfate	0.05
Endrin	0.01
Endrin Aldehyde	0.01
Heptachlor	0.01
Heptachlor Epoxide	0.01
Gamma-BHC (Lindane)	0.02
PCB 1016	0.5
PCB 1221	0.5
PCB 1232	0.5
PCB 1242	0.5
PCB 1248	0.5
PCB 1254	0.5
PCB 1260	0.5
Toxaphene	0.5

* The normal method-specific factor for these substances is 100; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance multiplied by 100.

Techniques:

GC - Gas Chromatography

GCMS - Gas Chromatography/Mass Spectrometry

HRGCMS - High Resolution Gas Chromatography/Mass Spectrometry (i.e., EPA 1613, 1624, or 1625)

LC - High Pressure Liquid Chromatography

FAA - Flame Atomic Absorption

GFAA - Graphite Furnace Atomic Absorption

HYDRIDE - Gaseous Hydride Atomic Absorption

CVAA - Cold Vapor Atomic Absorption

ICP - Inductively Coupled Plasma

ICPMS - Inductively Coupled Plasma/Mass Spectrometry

SPGFAA - Stabilized Platform Graphite Furnace Atomic Absorption (i.e., EPA 200.9)

DCP - Direct Current Plasma

COLOR - Colorimetric