

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. ____

NPDES NO. CA0081337

MONITORING AND REPORTING PROGRAM
FOR
SOUTHERN CALIFORNIA EDISON COMPANY
BALSAM MEADOWS HYDROELECTRIC PROJECT
EASTWOOD POWERHOUSE FACILITY
FRESNO COUNTY

Specific sample station locations shall be established with concurrence of Regional Board staff, and the Discharger shall attach a description of the stations to this Monitoring and Reporting Program. All analyses shall be performed in accordance with the latest edition of *Guidelines Establishing Test Procedures for Analysis of Pollutants*, promulgated by EPA (40 CFR 136) or other procedures approved by the Regional Board. Method Detection Limits (MDLs) and Minimum Levels (MLs) shall be reported for each constituent in all monitoring reports. All monitoring and reporting shall conform with SIP Reporting Requirements, Section 2.4 et seq. In particular, the reported MLs shall be at least as low as the lowest ML for each priority pollutant specified in Appendix 4 of the SIP. In reporting data, the Discharger shall indicate whether any analysis was performed using a method not in conformance with EPA's Guidelines.

Note: Other conditions, definitions, and methods of determining compliance are contained in the attached "Standard Provisions and Reporting Requirements for Waste Discharge Requirements (National Pollutant Discharge Elimination System)" dated February 2004.

EFFLUENT MONITORING

Effluent samples shall be collected as described below. Effluent samples shall be representative of the volume and quality of the discharge. Time of collection of samples shall be recorded. The following discharges shall be monitored:

Discharge Point 001

Monitoring data shall be collected at the internal waste streams (WSs) that comprise Discharge Point 001 as described below:

<u>WS</u>	<u>Description</u>
001A	WS 001A consists of discharge from the oil and grease separator and groundwater seepage. The sample location shall be at the main sump.

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<u>WS</u>	<u>Description</u>
001B	WS 001B consists of groundwater seepage into the construction tunnel. The sample location shall be at the construction tunnel sump.
003	WS 003 consists of non-contact cooling water from the Powerhouse to Tailrace Tunnel. The Discharger is required to provide flow data only for this waste stream.

Effluent monitoring for internal WSs 001A, 001B, and 003 shall include at least the following:

INTERNAL WS 001A

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Flow	mgd	Metered	Continuous
Oil and Grease ¹	mg/L	Grab	Quarterly
Suspended Solids	mg/L, lbs/day	Grab	Quarterly
Settleable Solids	ml/L	Grab	Quarterly
pH	standard units	Grab	Quarterly
Temperature	°F	Grab	Quarterly
EC at 25°C	µmhos/cm	Grab	Quarterly
Hardness (as CaCO ₃)	Mg/L	Grab	Quarterly
Priority Pollutants	See below	See below	Once during duration of permit
Chronic Toxicity	See below	See below	Once during duration of permit

¹ Sampling frequency is quarterly on condition. If the concentration of the constituent exceeds the daily maximum effluent limitation of 15 mg/L, the sampling frequency shall be increased to monthly until three consecutive months show that the discharge is consistently in compliance with the effluent limitation.

INTERNAL WS 001B

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Flow	mgd	Metered	Continuous
pH	standard units	Grab	Quarterly
Temperature	°F	Grab	Quarterly
EC at 25°C	µmhos/cm	Grab	Quarterly
Chronic Toxicity	See below	See below	Once during duration of permit

INTERNAL WS 003

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Flow	mgd	Metered	Continuous

Discharge Point 002

Discharge Point 002 consists of groundwater seepage into the construction tunnel that is sometimes re-routed to the access tunnel for discharge via Discharge Point 002. The sample location shall be at the access tunnel sump. Samples shall be collected for Discharge Point 002, when discharging, as described below:

DISCHARGE POINT 002

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u> ¹
Flow	mgd	Metered	Continuous
pH	standard units	Grab	Monthly
Temperature	°F	Grab	Monthly
EC at 25°C	µmhos/cm	Grab	Monthly

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u> ¹
Hardness (as CaCO ₃)	mg/L	Grab	Monthly
Priority Pollutants	See below	See below	Once during duration of permit
Chronic Toxicity	See below	See below	Once during duration of permit

¹ The Discharger shall monitor and record data for all of the constituents listed above on the first day the discharge occurs after which the frequencies of analysis given in the above schedule shall apply for the duration of each such intermittent discharge.

RECEIVING WATER MONITORING

All receiving water samples shall be grab samples. Receiving water monitoring shall include at least the following:

DISCHARGE POINT 001

<u>Station</u>	<u>Description</u>
R-3	Greater than 25 feet, and not to exceed 125 feet from the point of discharge to Shaver Lake.
R-4	Within 25 feet of the point of discharge from the Tailrace Tunnel to Shaver Lake

<u>Constituents</u>	<u>Units</u>	<u>Station</u>	<u>Sampling Frequency</u>
Dissolved Oxygen	mg/L	R-3, R-4	Twice/Year ¹
pH	standard units	R-3, R-4	Twice/Year ¹
Hardness (as CaCO ₃)	mg/L	R-3, R-4	Twice/Year ¹

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<u>Constituents</u>	<u>Units</u>	<u>Station</u>	<u>Sampling Frequency</u>
Temperature	°F	R-3, R-4	Twice/Year ¹
Turbidity	NTU	R-3, R-4	Twice/Year ¹
EC at 25°C	µmhos/cm	R-3, R-4	Twice/Year ¹
Priority Pollutants	See below	R-3	Once during duration of permit
Chronic Toxicity	See below	R-3	Once during duration of permit

¹ Twice/Year monitoring must occur once in the spring and fall (e.g., May and October).

DISCHARGE POINT 002

<u>Station</u>	<u>Description</u>
R-1	Not to exceed 250 feet upstream from the point of discharge from the access tunnel to North Fork Stevenson Creek.
R-2	Not to exceed 250 feet downstream from the point of discharge from the access tunnel to North Fork Stevenson Creek.

<u>Constituents</u>	<u>Units</u>	<u>Station</u>	<u>Sampling Frequency (when discharging)</u>
Flow	mgd	R-1	Monthly
Dissolved Oxygen	mg/L	R-1, R-2	Monthly
Hardness (as CaCO ₃)	mg/L	R-1, R-2	Monthly
pH	standard units	R-1, R-2	Monthly
Temperature	°F	R-1, R-2	Monthly
Turbidity	NTU	R-1, R-2	Monthly
EC at 25°C	µmhos/cm	R-1, R-2	Monthly

<u>Constituents</u>	<u>Units</u>	<u>Station</u>	<u>Sampling Frequency (when discharging)</u>
Priority Pollutants	See below	See below	Once during duration of permit
Chronic Toxicity	See below	See below	Once during duration of permit

In conducting the receiving water sampling, a log shall be kept of the receiving water conditions throughout the reach bounded by Stations R-1 and R-2 and within Shaver Lake (R-3 and R-4), attention shall be given to the presence or absence of:

1. Floating or suspended matter
2. Discoloration
3. Bottom deposits
4. Aquatic life
5. Visible films, sheens or coatings
6. Fungi, slimes, or objectionable growths
7. Potential nuisance conditions

Notes on receiving water conditions shall be summarized in the monitoring report.

CALIFORNIA TOXICS RULE MONITORING

The State Water Resources Control Board (SWRCB) adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (known as the State Implementation Policy or SIP). **The SIP states that the Regional Boards will require periodic monitoring for pollutants for which criteria or objectives apply and for which no effluent limitations have been established.** Accordingly, the Regional Board is requiring, as part of this Monitoring and Reporting Program, that the Discharger conduct **effluent monitoring and receiving water monitoring** of priority pollutants **one time no more than 365 days and no less than 180 days prior to expiration of this Order.** The list of priority pollutants and required minimum levels (MLs) (or criterion quantitation limitations) is included as Attachment C. The Discharger must analyze **pH and hardness** at the same time as priority pollutants in the effluent and receiving water.

All analyses shall be performed at a laboratory certified by the California Department of Health Services. The laboratory is required to submit the Minimum Level (ML) and the Method Detection

Limit (MDL) with the reported results for each constituent. The MDL should be as close as practicable to the USEPA MDL determined by the procedure found in 40 CFR Part 136. The reported MLs shall be at least as low as the lowest ML for each priority pollutant specified in Appendix 4 of the SIP. The results of analytical determinations for the presence of chemical constituents in a sample shall use the following reporting protocols:

- a. Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory.
- b. Sample results less than the reported ML, but greater than or equal to the laboratory's MDL, shall be reported as "Detected but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.
- c. For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration." Numerical estimates of data quality may be by percent accuracy (+ or - a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.
- d. Sample results that are less than the laboratory's MDL shall be reported as "Not Detected" or ND.

THREE SPECIES CHRONIC TOXICITY MONITORING

Chronic toxicity monitoring shall be conducted to determine whether the effluent is contributing toxicity to the receiving water. The testing shall be conducted as specified in EPA-821-R-02-013, *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, Fourth Edition, October 2002. Composite samples shall be collected at the Internal Stream 001A and Discharge Point 002. Twenty-four hour composite samples shall be representative of the volume and quality of the discharge. Time of sample collection shall be recorded. The sensitivity of the test organisms to a reference toxicant shall be determined concurrently with each bioassay and reported with the test results. Both the reference toxicant and effluent test must meet all test acceptability criteria as specified in the chronic manual. If the test acceptability criteria are not achieved, then the Discharger must re-sample and re-test within 14 days. Chronic toxicity monitoring shall include the following:

Species: *Pimephales promelas*, *Ceriodaphnia dubia* and *Selenastrum capricornicutum*

Frequency: **One time no less than 180 days prior to expiration of this Order.**

	<u>Dilutions (%)</u>					<u>Controls</u>	
	<u>100</u>	<u>50</u>	<u>25</u>	<u>12.5</u>	<u>6.25</u>		
						Receiving	Lab
						<u>Water</u>	<u>Water</u>
% Effluent	100	50	25	12.5	6.25	0	0
% Dilution Water ¹	0	50	75	87.5	93.75	100	0
% Lab Water ²	0	0	0	0	0	0	100

¹ Dilution water shall be receiving water taken upstream from the discharge point or in a location unaffected by the discharge. The dilution series may be altered upon approval of Regional Board staff.

² Lab water shall meet USEPA protocol requirements

REPORTING

Monitoring results shall be submitted to the Regional Board by the **1st day of the second month** following sample collection. Quarterly, twice/year, and annual monitoring results and reports shall be submitted by the **1st day of the second month** following each calendar quarter (i.e., by 1 February, 1 May, 1 August, and 1 November), twice/year period (1 February, and 1 August), and annual period (1 February), respectively.

In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner to illustrate clearly whether the discharge complies with waste discharge requirements. The highest daily maximum for the month, monthly and weekly averages, and medians, should be determined and recorded.

If the Discharger monitors any pollutant at the locations designated herein more frequently than is required by this Order, the results of such monitoring shall be included in the calculation and reporting of the values required in the discharge monitoring report form. Such increased frequency shall be indicated on the discharge monitoring report form.

By **1 February of each year**, the Discharger shall submit a written report to the Executive Officer containing the following:

- a. The names and telephone numbers of persons to contact in emergency and routine situations.

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- b. A statement certifying when monitoring instruments and devices for purposes of assuring compliance with this Order were last calibrated, including identification of who performed the calibration.

The Discharger may also be requested to submit an annual report to the Regional Board with both tabular and graphical summaries of the monitoring data obtained during the previous year. Any such request shall be made in writing. The report shall discuss the facility's compliance record. If violations have occurred, the report shall also discuss the corrective actions taken and planned to bring the discharge into full compliance with the waste discharge requirements.

All reports submitted in response to this Order shall comply with the signatory requirements of Standard Provision D.6.

The Discharger shall implement the above monitoring program on the first day of the month following effective date of this Order.

Ordered by: _____
THOMAS R. PINKOS, Executive Officer

(Date)