

**State of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION**

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

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
WASTE DISCHARGE REQUIREMENTS
FOR
CITY OF LOS ANGELES, DEPARTMENT OF WATER AND POWER
(Castaic Power Plant)**

The California Regional Water Quality Board, Los Angeles Region (hereinafter Regional Water Board), finds:

Background

1. The City of Los Angeles Department of Water and Power, Castaic Power Plant (hereinafter Castaic or Discharger) discharges wastewater under waste discharge requirements (WDRs) contained in Order No. 98-020 (NPDES No. CA0055824), adopted by the Regional Water Board on March 2, 1998. Order No. 98-020 expired on February 10, 2003.
2. Castaic filed a Report of Waste Discharge (ROWD) and applied for renewal of its WDRs and NPDES permit on August 12, 2002, for discharge of wastes to surface waters. Castaic submitted an amendment to the ROWD on March 13, 2007, to include the backwash water discharges from the facility's potable water system.

The Regional Water Board adopted Order No. R4-2007-0025 on May 3, 2007, for discharges of wastewater from the City of Los Angeles, Department of Water and Power, Castaic Power Plant to Santa Clara River. This Order also serves as a permit under the NPDES program.

On May 11, 2010, the Discharger submitted the "Castaic Dieldrin Source Study" (Source Study) to the Regional Water Board to comply with the requirements stipulated in Order No. R4-2007-0025. The Source Study described the following: (1) dieldrin uses; (2) the sites historical land uses; (3) sampling and testing of sediment and water samples from the Castaic Power Plant, areas surrounding the facility, and areas upstream of the facility; and (4) review of pesticide application and data from State Water Projects and tributary waterbodies. It also included site maps and source study analytical reports, including the chain of custody. The Source Study indicated that the results of all soil/sediment analyses for dieldrin were non-detect. The review of the historical usage indicated that no pesticides containing dieldrin were purchased or used by the Facility. In a letter dated May 24, 2010, the Discharger requested that the Pollution Minimization Plan (PMP) requirement for dieldrin stipulated in Order No. R4-2007-0025 be considered fulfilled and deleted from the monitoring program because the Source Study has been performed. Furthermore, the Discharger also requested that all remaining quarterly monitoring for dieldrin be reduced to annually because of the results of the study.

Purpose of Order

- The purpose of this Order is to amend the WDRs and NPDES permit for Castaic to incorporate the associated updates based on the new information submitted by the Discharger. This NPDES permit regulates the discharge of cooling water and other wastewaters, through Discharge Serial No. 001 into Pyramid Lake and through Discharge Serial No. 002 into Castaic Lake, waters of the United States. The point of discharge of water from Elderberry Forebay to Pyramid Lake is located at Latitude 34°38'49" North, Longitude 118°45'43" West. The point of discharge of water from Elderberry Forebay to Castaic Lake is located at Latitude 34°33'34" North, Longitude 118°37'53" West. Additional discharges to Elderberry Forebay are comprised of non-contact cooling water, industrial use water, and floor drain sump water.

Facility Description

- Castaic operates a hydroelectric, pump storage generating station located at 37700 Templin Highway (approximately five miles east of Interstate 5), Castaic, Los Angeles County, California. The facility provides peak-load power, generated by the movement of water from Pyramid Lake down a gradient (through a 7.2-mile long tunnel and penstocks) to turn seven turbines, with eventual discharge to Elderberry Forebay. Approximately 2.6 billion gallons per day (gpd) of water from Pyramid Lake is transferred to Elderberry Forebay during the production of electrical energy. During off-peak hours, water is pumped from Elderberry Forebay back to Pyramid Lake. A location map is provided as Figure 1. A water flow diagram for the Castaic Power Plant is provided as Figure 2.

Discharge Description

- Source water for power generation is taken from Pyramid Lake. Source water for other uses is taken from Pyramid Lake, Elderberry Forebay, and ground water resources. Other uses for water at the Castaic Power Plant include generator cooling, turbine cooling, and industrial uses (i.e., fire suppression system and floor wash down activities). During off-peak hours, water is pumped back from Elderberry Forebay to Pyramid Lake.
- This Order permits discharges of cooling water and other wastewaters from the facility. According to the previous Order (Order No. 98-020) and the permit renewal application, Castaic Power Plant discharges up to 13.2 million gpd of wastewater to Elderberry Forebay. In addition, Castaic discharges backwash water to Elderberry Forebay three to four times a week at 1,200 to 1,500 gallons per event. The following Table shows the sources and uses of cooling water and wastewaters at the facility.

Source	Use(s)	Volume
Elderberry Forebay	Units 1 – 6 generator cooling	11,700,000 gpd
	Units 1 – 6 turbine cooling	739,200 gpd
	Industrial water plant (industrial and domestic use, compressor cooling)	702,900 gpd
	Seal drain sump	3,000 gpd

Source	Use(s)	Volume
	Draft tubes and dewatering sump	3,000 gpd
Pyramid Lake	Unit 7 generator cooling	94,300 gpd
	Gallery drain sump	2,000 gpd
	Draft tubes and dewatering sump	1,000 gpd
Ground Water	Gallery drain sump	100 gpd
Total		13,245,500 gpd

7. The wastewater discharged to Elderberry Forebay consists of the following:

Generator and turbine cooling water - Units 1, 2, 3, 4, 5, and 6	12,402,000 gpd
Air Compressor after-cooling water	691,200 gpd
Generator cooling water - Unit 7	94,300 gpd
Mechanical turbine shaft seals - Units 1, 2, 3, 4, 5, and 6	37,200 gpd
Draft tubes dewatering sump water	4,000 gpd
Compressor after coolers cooling water	3,000 gpd
Seal drain sump water	3,000 gpd
Industrial use water	2,200 gpd
Gallery drain sump water	2,100 gpd
Air compressor after coolers cooling water	500 gpd
Backwash water from potable water system	1200 to 1500 gpd
<u>Total discharge</u>	<u>13,241,000 gpd</u>

8. There are ten wastewater discharge streams to Elderberry Forebay. They are discussed below.

- a. *Waste Streams 1 through 6: Units 1,2,3,4,5, and 6 Generator Cooling.* The generator and turbine cooling water for power generating Units 1 – 6 is non-contact cooling water, which is discharged through underwater discharge points to Elderberry Forebay without treatment. There is no designated Discharge Serial Number for these waste streams because of the location of the discharge points.
- b. *Waste Stream 7: Unit 7 Tailrace.* The wastewater discharge from Unit 7 tailrace (discharge channel) is composed of Unit 7 generator cooling water, industrial use water, and air compressor after cooler cooling water. The generator and after cooler cooling systems are closed systems that use non-contact cooling water. The industrial use water comes from sprinkler and fire suppressant systems and floor wash down water. Unit 7 tailrace wastewater is discharged to Elderberry Forebay without treatment. The proposed Order designates Discharge Serial No. 003 for this waste stream.
- c. *Waste Stream 8: Oil-Water Separator.* As water passes over the turbines to generate power, some water leaks through the surrounding mechanical turbine shaft seals. This water is collected via drains throughout the facility and channeled to a floor drain sump. A portion (500 gpd) of the industrial use water, used for sprinkler and fire suppression systems and floor wash down water, is also directed to the floor drain sump. Water from the floor drain sump passes through an oil-water separator

prior to discharge to Elderberry Forebay. The total flow through the oil-water separator is 37,700 gpd. This is the only treated discharge to Elderberry Forebay. The proposed Order designates Discharge Serial No. 004 for this waste stream.

- d. *Waste Stream 9: Combined Discharge from Additional Cooling, Sump, and Industrial Use Waters.* The remaining discharge is composed of wastewaters from compressor coolers and after cooler, industrial use, and seal drain, gallery drain, and dewatering sumps. Castaic Power Plant uses compressed air to build pressure in the draft tubes in order to prime the pumps used to pump water from Elderberry Forebay back to Pyramid Lake. The compressed air and water is then released to a dewatering sump. A gallery drain sump is used as a drain system for the penstocks (intake conduit). A seal drain sump collects water that leaks through the rubber seals connecting the three parts of the building. Water from the dewatering sump, gallery drain sump, and seal drain sump combines with non-contact cooling water from the compressor coolers and compressor after cooler and 1,500 gpd of industrial use water for discharge to Elderberry Forebay without treatment. The proposed Order designates Discharge Serial No. 005 for this waste stream.
 - e. *Waste Stream 10: Backwash water from potable water system.* The facility has a domestic water system designed to provide up to 100,000 gallons of potable water for the Plant's personnel use. The potable water system draws water from the Plant's penstocks. The water is treated primarily for the removal of solids via the addition of sediment-binding flocculants and the subsequent retention of this sediment in the system's clarifying units. The system is then pressurized, chlorinated, and delivered as potable supply. To maintain the delivery of high quality potable water and to remove the build up of the sediment on the filter, backwash procedure is routinely exercised. During the backwash cycle, water from the first of two pressurized reservoirs (called hydropneumatic tank I) is isolated from the system mainline and pumped in reverse to the backwash inlet of either of the two clarifier treatment systems designated for clean out (one system must remain online to provide potable water). The clarifier systems consist of a rough filter tank and a fine filter tank to remove the sediment material from the water treatment system. The material goes to two in-series 2000 gallon settling tanks and after a sufficient settling period, supernatant (backwash water) is discharged to Elderberry Forebay. The collected solids remaining in the tanks are removed and disposed of in accordance with the federal, state, and local regulations. The backwash discharge event may occur three to four times a week at 1,200 to 1,500 gallons per event, depending on the turbidity level of the raw water. The proposed Order designates Discharge Serial No. 006 for this waste stream.
9. Approximately 1.1 billion gpd of water is pumped from Elderberry Forebay back to Pyramid Lake during off-peak hours through Discharge Serial No. 001. An additional 1.5 billion gpd of water from Elderberry Forebay is released downstream to Castaic Lake for recharge purposes through Discharge Serial No. 002. The water discharged from Elderberry Forebay to Pyramid Lake and Castaic Lake via Discharge Serials 001 and 002, respectively, receives no treatment. Pyramid Lake is tributary to the Santa Clara River via Piru Creek and Lake Piru. Castaic Lake is tributary to the Santa Clara River

via Castaic Creek. The receiving waters are all waters of the United States.

10. The previous Order included effluent limitations for discharges to Pyramid Lake via Discharge Serial No. 001 and to Castaic Lake via Discharge Serial No. 002. However, there were no effluent limits established to wastewater discharges to Elderberry Forebay. Since Elderberry Forebay is a water of the United States with designated beneficial uses in the Water Quality Control Plan for the Los Angeles Region (specified in Finding 13), this Order establishes effluent limits for wastewater discharges to Elderberry Forebay for the four waste streams, and designates new Discharge Serial Numbers for these waste streams. The new Discharge Numbers are: 1) Discharge Serial No. 003: discharges from Unit 7 tailrace; 2) Discharge Serial No. 004: discharges from the oil-water separator; 3) Discharge Serial No. 005: the combined discharge from the compressor coolers and after cooler, industrial use, and seal drain, gallery drain, and dewatering sumps; and 4) Discharge Serial No. 006: discharges of backwash water from the potable water system. This Order applies effluent limits to the aforementioned four discharges to Elderberry Forebay. Elderberry Forebay is a water of the United States and tributary to Castaic Lake. Therefore, the Regional Water Board determined the effluent limitations are appropriately applied to discharges from the facility to Elderberry Forebay (directly downstream) and to water pumped from Elderberry Forebay to Pyramid Lake as well as to water released from Elderberry Forebay to Castaic Lake (downstream).

Applicable Plans, Policies, Laws, and Regulations

11. On June 13, 1994, the Regional Water Board adopted a revised *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan) as amended on January 27, 1997 by Regional Water Board Resolution No. 97-02. The Basin Plan (i) designates beneficial uses for surface and groundwaters, (ii) sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state antidegradation policy (*Statement of Policy with Respect to Maintaining High Quality Waters in California*, State Board Resolution No. 68-16, October 28, 1968), and (iii) describes implementation programs to protect all waters in the Region. In addition, the Basin Plan incorporates (by reference) applicable State and Regional Water Board plans and policies and other pertinent water quality policies and regulations. The Regional Water Board prepared the 1994 update of the Basin Plan to be consistent with all previously adopted State and Regional Water Board plans and policies. This Order implements the plans, policies and provisions of the Regional Water Board's Basin Plan.
12. The Basin Plan contains water quality objectives and beneficial uses for inland surface waters and for the Pacific Ocean. Inland surface waters consist of rivers, streams, lakes, reservoirs, and inland wetlands. Beneficial uses for a surface water can be designated, whether or not they have been attained on a waterbody, in order to implement either federal or state mandates and goals (such as fishable and swimmable for regional waters).
13. The immediate receiving water bodies for the permitted discharge covered by this permit are Elderberry Forebay, Castaic Lake, and Pyramid Lake. The Basin Plan contains

beneficial uses and water quality objectives for Elderberry Forebay, Castaic Lake, and Pyramid Lake, and are listed below. The beneficial uses listed in the Basin Plan for Elderberry Forebay are:

Existing uses: municipal and domestic supply; industrial service supply; industrial process supply; agricultural supply; ground water recharge; freshwater replenishment; hydropower generation; water contact recreation; non-contact water recreation; warm freshwater habitat; wildlife habitat; rare, threatened, or endangered species; spawning, reproduction, and/or early development.

The Basin Plan contains the following beneficial uses and water quality objectives for Castaic Lake:

Existing uses: municipal and domestic supply; industrial service supply; industrial process supply; agricultural supply; ground water recharge; freshwater replenishment; hydropower generation; water contact recreation; non-contact water recreation; warm freshwater habitat; wildlife habitat; rare, threatened, or endangered species; spawning, reproduction, and/or early development.

Intermittent uses: cold freshwater habitat.

The Basin Plan contains the following beneficial uses and water quality objectives for Pyramid Lake:

Existing uses: municipal and domestic supply; industrial service supply; industrial process supply; agricultural supply; ground water recharge; hydropower generation; water contact recreation; non-contact water recreation; warm freshwater habitat; cold freshwater habitat; wildlife habitat; rare, threatened, or endangered species.

Potential uses: freshwater replenishment.

Applicability of NPDES Program to Hydroelectric Facilities

14. In *National Wildlife Federation v. Consumer Power Co.*, 862 F.2d 580, 28 ERC 1572 (6th Circuit, 1988), environmental plaintiffs sought to impose NPDES permit requirements on a hydroelectric facility that drew water from lake Michigan into a man-made impoundment above a dam and generated power by discharging the lake water back into the Lake through the dam's turbines. 862 F.2d at 581-582. The facility operation caused fish entrainment and mortality. The 6th Circuit ruled that the operator did not need an NPDES permit in that situation. *Id.* At 581, 590. Yet, in its ruling, the 6th Circuit decision, specifically recognized that the introduction of pollutants, such as from oil/water separator, to these waters would make the facility subject to the NPDES program. *Id.* at 586.

15. In *Arizona Department of Water Quality v. Bureau of Reclamation Glen Canyon Dam and Power Plant*, Notice of Violation, Case ID #31682, the USEPA opined that a hydroelectric facility that discharges wastewater from floor drains from maintenance areas, seal water leakage, drainage from under the penstock, drainage from oil/water separators, and other pollutants is subject to the permitting requirements of the Clean Water Act.

Ammonia Basin Plan Amendment.

16. The 1994 Basin Plan provided water quality objectives for ammonia to protect aquatic life, in Tables 3-1 through Tables 3-4. However, those ammonia objectives were revised on April 25, 2002, by the Regional Water Board with the adoption of Resolution No. 2002-011, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters (Including Enclosed Bays, Estuaries and Wetlands) with Beneficial Use Designations for Protection of Aquatic Life*. The ammonia Basin Plan amendment was approved by the State Board, the Office of Administrative Law, and U.S. EPA on April 30, 2003, June 5, 2003, and June 19, 2003, respectively. Although the revised ammonia water quality objectives may be less stringent than those contained in the 1994 Basin Plan, they are still protective of aquatic life and are consistent with U.S. EPA's 1999 ammonia criteria update.
17. The State Board adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for inland surface waters.
18. On May 18, 2000, the U.S. EPA promulgated numeric criteria for priority pollutants for the State of California [known as the *California Toxics Rule* (CTR) and codified as Title 40, Code of Federal Regulations (40 CFR) 131.38]. In the CTR, U.S. EPA promulgated criteria that protect the general population at an incremental cancer risk level of one in a million (10^{-6}), for all priority toxic pollutants regulated as carcinogens. The CTR also allows for a schedule of compliance not to exceed 5 years from the date of permit issuance for a point source discharge if the Discharger demonstrates that it is infeasible to promptly comply with effluent limitations derived from the CTR criteria.
19. On March 2, 2000, the State Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP was effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the U.S. EPA through the National Toxics Rule (NTR), and to the priority pollutant objectives established by the Regional Water Boards in their basin plans, with the exception of the provision on alternate test procedures for individual discharges that have been approved by the U.S. EPA Regional Administrator. The alternate test procedures provision was effective on May 22, 2000. The SIP was effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the U.S. EPA through the CTR. The SIP requires the dischargers' submittal of data sufficient to conduct the determination of priority pollutants requiring water quality-based effluent limits (WQBELs) and to calculate the effluent limitations. The CTR criteria for fresh water or human health for consumption of

organisms, whichever is more stringent, are used to develop the effluent limitations in this Order to protect the beneficial uses of Elderberry Forebay, Castaic Lake, and Pyramid Lake.

20. Under 40 CFR 122.44(d), Water Quality Standards and State Requirements, "Limitations must control all pollutants or pollutant parameters (either conventional, non-conventional, or toxic pollutants), which the Director [permitting authority] determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality." Where numeric effluent limitations for a pollutant or pollutant parameter have not been established in the applicable state water quality control plan, 40 CFR section 122.44(d)(1)(vi) specifies that WQBELs may be set based on U.S. EPA criteria, and may be supplemented where necessary by other relevant information to attain and maintain narrative water quality criteria, and to fully protect designated beneficial uses.
21. Effluent limitation guidelines requiring the application of best practicable control technology currently available (BPT), best conventional pollutant control technology (BCT), and best available technology economically achievable (BAT), were promulgated by the U.S. EPA for some pollutants in this discharge. Effluent limitations for pollutants not subject to the U.S. EPA effluent limitation guidelines are based on one of the following: best professional judgment (BPJ) of BPT, BCT or BAT; current plant performance; or WQBELs. The WQBELs are based on the Basin Plan, other State plans and policies, or U.S. EPA water quality criteria which are taken from the CTR. These requirements, as they are met, will protect and maintain existing beneficial uses of the receiving water. The attached Fact Sheet for this Order includes specific bases for the effluent limitations.
22. State and Federal antibacksliding and antidegradation policies require Regional Water Board actions to protect the water quality of a water body and to ensure that the waterbody will not be further degraded. The antibacksliding provisions are specified in section 402(o) and 303(d)(4) of the Clean Water Act (CWA) and in 40 CFR, section 122.44(l). Those provisions require a reissued permit to be as stringent as the previous permit with some exceptions where effluent limitations may be relaxed.
23. Effluent limitations are established in accordance with sections 301, 304, 306, and 307 of the CWA, and amendments thereto. These requirements, as they are met, will maintain and protect the beneficial uses of Elderberry Forebay, Castaic Lake, and Pyramid Lake.

Watershed Management Approach and Total Maximum Daily Loads (TMDLs)

24. The Regional Water Board has implemented the Watershed Management Approach to address water quality issues in the region. Watershed management may include diverse issues as defined by stakeholders to identify comprehensive solutions to protect, maintain, enhance, and restore water quality and beneficial uses. To achieve this goal, the Watershed Management Approach integrates the Regional Water Board's many diverse programs, particularly Total Maximum Daily Loads (TMDLs), to better assess cumulative impacts of pollutants from all point and non-point sources. A TMDL is a tool for implementing water quality standards and is based on the relationship between

pollution sources and in-stream water quality conditions. The TMDL establishes the allowable loadings or other quantifiable parameters for a waterbody and thereby provides the basis to establish water quality-based controls. These controls should provide the pollution reduction necessary for a waterbody to meet water quality standards. This process facilitates the development of watershed-specific solutions that balance the environmental and economic impacts within the watershed. The TMDLs will establish waste load allocation (WLAs) and load allocations (LAs) for point and non-point sources, and will result in achieving water quality standards for the waterbody.

25. The U.S. EPA approved the State's 2002 303(d) list of impaired water bodies on July 25, 2003. Pyramid Lake, Elderberry Forebay, and Castaic Lake are located in the northeastern portion of the Los Angeles Basin in the Santa Clara River watershed. Pyramid Lake is tributary to the Santa Clara River via Piru Creek; Elderberry Forebay is tributary to Castaic Lake, which is tributary to the Santa Clara River via Castaic Creek. The 2002 State Board's California 303(d) List does not classify Pyramid Lake, Elderberry Forebay, Castaic Lake, Piru Creek, or Castaic Creek as impaired. According to the 2002 303(d) list, the Santa Clara River is impaired in Reach 3 for ammonia and chlorides. However, these pollutants are not known to be present in the discharge from Castaic Power Plant. In addition, Reach 3 of the Santa Clara River is a significant distance downstream from Castaic Power Plant through several unimpaired water bodies and reaches. All other impaired reaches of the Santa Clara River are upstream of the convergence point of Castaic Creek and Piru Creek.

Data Availability and Reasonable Potential Monitoring

26. 40 CFR 122.44(d)(1)(i) and (ii) require that each toxic pollutant be analyzed with respect to its reasonable potential to (1) cause; (2) have the reasonable potential to cause; or (3) contribute to the exceedance of a receiving water quality objective. This is done by performing a reasonable potential analysis (RPA) for each pollutant.
27. Section 1.3 of the SIP requires that a limit be imposed for a toxic pollutant if (1) the maximum effluent concentration (MEC) is greater than the most stringent CTR criteria, or (2) the background concentration is greater than the CTR criteria, or (3) other information is available. Sufficient effluent data are needed for this analysis.
28. Regional Water Board staff has determined that pollutants that have effluent limits in the previous Order will be included in this permit, except for PCBs. Certain effluent limitations have been established based on the revised water quality criteria contained in the CTR and the requirements contained in Section 1.4 of the SIP. This permit also includes requirements for additional monitoring to provide the data needed to complete an RPA on all of the priority pollutants.
29. An RPA was completed using the data collected at the site for the period June 2002 through October 2003 for Discharge Serial Nos. 001 and 002 to determine if any of the constituents sampled previously at the site had a positive RPA. Based on the RPA, there is reasonable potential to exceed water quality standards for dieldrin for the discharge through Discharge Serial No. 001. The RPA indicated that the discharge has the

potential to exceed the WQBELs for dieldrin for Discharge Serial No. 001.

Furthermore, the data submitted as part of the amendment to the ROWD on March 13, 2007, showed reasonable potential to exceed WQBELs for copper, lead, zinc, and dichlorobromomethane for discharges through Discharge Serial No. 006. Therefore, effluent limitations for dieldrin (Discharge Serial No. 001), and for copper, lead, zinc, and dichlorobromomethane (Discharge Serial No. 006) are prescribed based on the California Toxic Rule (CTR).

Compliance Schedules and Interim Limitations

30. The Castaic facility may not be able to achieve immediate compliance with the WQBELs for dieldrin for Discharge Serial No. 001, in Section I.B.3. of this Order. Data submitted in self-monitoring reports indicate that this constituent has been detected at concentration greater than the new limit proposed in this Order. The Discharger may not be able to achieve immediate compliance with an effluent limitation based on CTR criterion for this constituent.

In addition, the data submitted by LADWP as part of the ROWD on March 13, 2007, showed that the Discharger may not be able to immediately comply with the CTR-based effluent limitations for copper, lead, zinc, and dichlorobromomethane.

31. Section 2.1 of the SIP provides that, based on a discharger's request and demonstration that it is infeasible for an existing discharger to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. Unless an exception has been granted under section 5.3 of the SIP, a compliance schedule may not exceed 5 years from the date that the permit is issued or reissued, nor may it extend beyond 10 years from the effective date of the SIP (or May 17, 2010) to establish and comply with CTR criterion-based effluent limitations. Where a compliance schedule for a final effluent limitation exceeds 1 year, the Order must include interim numeric limitations for that constituent or parameter. Where allowed by the Los Angeles Region Basin Plan, compliance schedules and interim effluent limitations or discharge specifications may also be granted to allow time to implement a new or revised water quality objective.
32. 40 CFR 131.38(e) and the CTR provide conditions under which interim effluent limit and compliance schedules may be issued. The CTR and SIP allow inclusion of an interim limit with a specific compliance schedule included in a NPDES permit for priority pollutants if the limit for the priority pollutant is CTR-based.

Order No. R4-2007-0025 included compliance schedule and interim effluent limitation for dieldrin for Discharge Serial No. 001. It also included interim effluent limitations for copper, lead, zinc, and dichlorobromomethane for Discharge Serial No. 006. The Discharger conducted a Source Study for dieldrin (completed on May 2010) to satisfy the requirements of the Compliance Plan in Order No. R4-2007-0025. The Source Study indicated that the results of the analyses for all water samples taken from the Plant's discharge points, adjacent areas, and local waters tributary to the Castaic Facility were non-detect for dieldrin. In addition, the interim effluent limitation for dieldrin expired

on May 17, 2010. The interim effluent limitations for copper, lead, zinc, and dichlorobromomethane expired on June 3, 2009. Therefore, this amendment Order does not include compliance schedules and interim effluent limitations.

CEQA and Notifications

33. The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to issue waste discharge requirements for this discharge, and has provided them with an opportunity to submit their written views and recommendations.
34. The Regional Water Board, in a public hearing, heard and considered all comments pertaining to the discharge and to the tentative requirements.
35. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal CWA or amendments thereto, and is effective 30 days (June 2, 2007) from the date of its adoption, in accordance with federal law, provided the Regional Administrator, U.S. EPA, has no objections.
36. Pursuant to California Water Code section 13320, any aggrieved party may seek review of this Order by filing a petition with the State Board. A petition must be sent to the State Water Resources Control Board, Office of Chief Counsel, ATTN: Elizabeth Miller Jennings, Senior Staff Counsel, 1001 I Street, 22nd Floor, Sacramento, California, 95814, within 30 days of adoption of this Order.
37. The issuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) in accordance with the California Water Code, section 13389.

IT IS HEREBY ORDERED that City of Los Angeles Department of Water and Power, Castaic Power Plant (Castaic), in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted there under, and the provisions of the Federal Clean Water Act and regulations and guidelines adopted there under, shall comply with the following:

I. DISCHARGE REQUIREMENTS

A. Discharge Prohibitions

1. Wastes discharged shall be limited to a maximum of 13.2 million gallons per day (gpd) of cooling water, industrial use water, and floor drain sump water; 1,200 to 1,500 gallons per discharge event of backwash water; up to 1.1 billion gpd of water from Elderberry Forebay back to Pyramid Lake; and up to 1.5 billion gpd of water from Elderberry Forebay to Castaic Lake.
2. Discharges of water, materials, thermal wastes, elevated temperature wastes, toxic wastes, deleterious substances, or wastes other than those authorized by this Order, to a storm drain system, Elderberry Forebay, Castaic Lake, or Pyramid Lake, or waters of the State, are prohibited.

B. Effluent Limitations

The discharge of an effluent in excess of the following limitations is prohibited:

1. A pH value less than 6.5 or greater than 8.5.
2. A temperature greater than 86° F.
3. Final effluent limitations:
 - (a) In addition to the Requirements I.B.1 and I.B.2, the discharge due to off-peak pumping from Elderberry Forebay to Pyramid Lake through Discharge Serial No. 001 (Latitude 34°38'49", Longitude 118°45'43"); the release to Castaic Lake through Discharge Serial 002; the discharge of non-contact cooling water and industrial use water from the Unit 7 tailrace to Elderberry Forebay through Discharge Serial No. 003; the discharges of non-contact cooling water, industrial use water and other wastewaters from the combined discharge from compressor coolers and after coolers, industrial use, and seal drain, gallery drain, and dewatering sumps to Elderberry Forebay through Discharge Serial No. 005 containing constituents in excess of the following limitations is prohibited:

Constituent (units)	Discharge Limitations	
	Monthly Average	Daily Maximum
Settleable solids (ml/L)	0.1	0.3
Suspended solids (mg/L)	50	150
Turbidity (NTU) ¹	5	25
Dieldrin (µg/L) ²	0.00014	0.00028

¹ During periods of storm runoff where natural turbidity is between 0 and 50 NTU (nephelometric turbidity units), increases shall not exceed 20%. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%.

² Applies only to Discharge Serial No. 001.

- (b) In addition to the Requirements I.B.1 and I.B.2, the discharge from the oil-water separator to Elderberry Forebay (industrial use water and leakage from mechanical turbine shaft seals for Units 1 – 6) through Discharge Serial No. 004 containing constituents in excess of the following limitations is prohibited:

Constituent (units)	Discharge Limitations	
	Monthly Average	Daily Maximum
Oil and Grease (mg/L)	10	15
BOD ₅ 20°C (mg/L)	--	10

- (c) In addition to the Requirements I.B.1 and I.B.2, the discharge of backwash water from the potable water system to Elderberry Forebay through Discharge Serial No. 006 containing constituents in excess of the following limitations is prohibited:

Constituent (units)	Discharge Limitations	
	Monthly Average	Daily Maximum
Settleable solids (ml/L)	0.1	0.3
Suspended solids (mg/L)	50	150
Turbidity (NTU)	5	25
Residual chlorine (mg/L)	--	0.1
Oil and Grease (mg/L)	10	15
BOD ₅ 20°C (mg/L)	--	10
Methylene blue activated substances (MBAS) (mg/L)	--	0.5
Copper (µg/L) ¹	9.33	14
Lead (µg/L) ¹	3.18	81.65
Zinc (µg/L) ¹	120	120
Dichlorobromomethane (µg/L)		0.56
Acute Toxicity ²	--	--

¹ Limits for these metals are expressed as total recoverable.

² The acute toxicity of the effluent shall be such that (i) the average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and (ii) no single test producing less than 70% survival.

If either of the above requirements is not met, the Discharger shall conduct six additional tests over a six-week period. The Discharger shall ensure that they receive results of a failing acute toxicity test within 24 hours of the completion of the test, and the additional tests shall begin within 3 business days of the receipt of the result. If the additional tests indicate compliance with acute toxicity limitation, the Discharger may resume regular testing. However, if the results of any two of the six accelerated tests are less than 90% survival, then the Discharger shall begin a Toxicity Identification Evaluation (TIE). The TIE shall include all reasonable steps to identify the source(s) of toxicity. Once the source(s) of toxicity is identified, the Discharger shall take all reasonable steps to reduce the toxicity to meet the objective.

If the initial test and the additional six acute toxicity bioassay tests result in less than 70% survival, including the initial test, the Discharger shall immediately begin a TIE.

The Discharger shall conduct acute toxicity monitoring as specified in Monitoring and Reporting Program No. 6112.

C. Receiving Water Limitations

1. The discharge shall not cause the following conditions to exist in the receiving waters:
 - (a) Floating, suspended or deposited macroscopic particulate matter or foam;
 - (b) Alteration of temperature, turbidity, or apparent color beyond present natural background levels;
 - (c) Visible, floating, suspended or deposited oil or other products of petroleum origin;

- (d) Bottom deposits or aquatic growths; or,
 - (e) Toxic or other deleterious substances to be present in concentrations or quantities which cause deleterious effects on aquatic biota, wildlife, or waterfowl or render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
2. The discharge shall not cause nuisance, or adversely effect beneficial uses of the receiving water.
 3. No discharge shall cause a surface water temperature rise greater than 5°F above the natural temperature of the receiving waters at any time or place.
 4. The discharge shall not cause the following limitations to be exceeded in the receiving waters at any place within the waterbody of the receiving waters:
 - (a) The pH shall not be depressed below 6.5 nor raised above 8.5, nor caused to vary from normal ambient pH levels by more than 0.5 units;
 - (b) Dissolved oxygen shall not be less than 5.0 mg/L anytime, and the median dissolved oxygen concentration for any three consecutive months shall not be less than 80 percent of the dissolved oxygen content at saturation;
 - (c) Dissolved sulfide shall not be greater than 0.1 mg/L;
 - (d) The ammonia in the 1994 Basin Plan were revised by Regional Water Board Resolution No. 2002-011, adopted on April 28, 2002, to be consistent with the 1999 U.S. EPA update on ammonia criteria. Regional Water Board Resolution No. 2002-011 was approved by State Board, OAL and U.S. EPA on April 30, 2003, June 5, 2003, and June 19, 2003, respectively and is now in effect. Total ammonia (as N) shall not exceed concentrations specified in the Regional Water Board Resolution 2002-011.
 5. The discharge shall not cause a violation of any applicable water quality standards for receiving waters adopted by the Regional Water Board or State Board. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Regional Water Board will revise or modify this Order in accordance with such standards.
 6. The discharge shall not cause the following to be present in receiving waters:
 - a. Biostimulatory substances at concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses;
 - b. Chemical substances in amounts that adversely affect any designated beneficial use;

- c. Oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the receiving water or on objects in the water;
 - d. Suspended or settleable materials in concentrations that cause nuisance or adversely affect beneficial uses;
 - e. Taste or odor-producing substances in concentrations that alter the natural taste, odor, and/or color of fish, shellfish, or other edible aquatic resources; cause nuisance; or adversely affect beneficial uses;
 - f. Substances that result in increases of BOD₅20°C that adversely affect beneficial uses;
- 7. The discharge shall not alter the color, create a visual contrast with the natural appearance, nor cause aesthetically undesirable discoloration of the receiving waters.
 - 8. The discharge shall not degrade surface water communities and populations including vertebrate, invertebrate, and plant species.
 - 9. The discharge shall not damage, discolor, nor cause formation of sludge deposits on flood control structures or facilities nor overload their design capacity.
 - 10. The discharge shall not cause problems associated with breeding of mosquitoes, gnats, black flies, midges, or other pests.

II. REQUIREMENTS

A. Compliance Plan

Not Applicable

- B.** Pursuant to the requirements of 40 CFR 122.42(a), the Discharger must notify the Board as soon as it knows, or has reason to believe (1) that it has begun or expected to begin, to use or manufacture a toxic pollutant not reported in the permit application, or (2) a discharge of toxic pollutant not limited by this Order has occurred, or will occur, in concentrations that exceed the specified limitations in 40 CFR 122.42(a).
- C.** The Discharger shall at all times properly operate and maintain all facilities and systems installed or used to achieve compliance with this Order.
- D.** The Discharger shall comply with the waste load allocations that will be developed from the TMDL process for the 303 (d)-listed pollutants.

- E. The discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream which may ultimately be released to waters of the United States, is prohibited unless specifically authorized elsewhere in this permit or another NPDES permit. This requirement is not applicable to products used for lawn and agricultural purposes.
- F. The discharge of any waste resulting from the combustion of toxic or hazardous wastes to any waste stream which ultimately discharges to waters of the United States is prohibited, unless specifically authorized elsewhere in this permit.
- G. The Discharger shall notify the Executive Officer in writing no later than 6 months prior to planned discharge of any chemical, other than chlorine or other product previously reported to the Executive Officer, which may be toxic to aquatic life. Such notification shall include:
 - a. Name and general composition of the chemical,
 - b. Frequency of use,
 - c. Quantities to be used,
 - d. Proposed discharge concentrations, and
 - e. U.S. EPA registration number, if applicable.

No discharge of such chemical shall be made prior to the Executive Officer's approval.

- H. The Regional Water Board and U.S. EPA shall be notified immediately by telephone, of the presence of adverse conditions in the receiving waters or on beaches and shores as a result of wastes discharged; written confirmation shall follow as soon as possible but not later than five working days after occurrence.

III. PROVISIONS

- A. This Order includes the attached *Standard Provisions and General Monitoring and Reporting Requirements* (Standard Provisions, Attachment N). If there is any conflict between provisions stated herein and the attached Standard Provisions, those provisions stated herein shall prevail.
- B. This Order includes the attached *M&RP* No. 6112. If there is any conflict between provisions stated in the *M&RP* and the Standard Provisions, those provisions stated in the *M&RP* shall prevail.
- C. This Order may be modified, revoked, reissued, or terminated in accordance with the provisions of 40 CFR sections 122.44, 122.62, 122.63, 122.64, 125.62 and 125.64. Causes for taking such actions include, but are not limited to: failure to comply with any condition of this Order; endangerment to human health or the environment resulting from the permitted activity; or acquisition of newly-obtained information which would have justified the application of different conditions if known at the time of Order adoption. The filing of a request by the Discharger for an Order modification, revocation, and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

- D.** The Discharger must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of storm water to storm drain systems or other water courses under their jurisdiction; including applicable requirements in municipal storm water management program developed to comply with NPDES permits issued by the Regional Water Board to local agencies.
- E.** Discharge of wastes to any point other than specifically described in this Order and permit is prohibited and constitutes a violation thereof.
- F.** The Discharger shall comply with all applicable effluent limitations, national standards of performance, toxic effluent standards, and all federal regulations established pursuant to Sections 301, 302, 303(d), 304, 306, 307, 316, and 423 of the Federal Clean Water Act and amendments thereto.
- G. Compliance Determination**
1. Compliance with single constituent effluent limitation – If the concentration of the pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (see Reporting Requirement II.C. of the *M&RP* No. CI-6112), then the Discharger is out of compliance.
 2. Compliance with monthly average limitations - In determining compliance with monthly average limitations, the following provisions shall apply to all constituents:
 - a. If the analytical result of a single sample, monitored monthly, quarterly, semi-annually, or annually, does not exceed the monthly average limit for that constituent, the Discharger has demonstrated compliance with the monthly average limit for that month.
 - b. If the analytical result of a single sample, monitored monthly, quarterly, semi-annually, or annually, exceeds the monthly average limit for any constituent, the Discharger shall collect up to four additional samples at approximately equal intervals during the month. All analytical results shall be reported in the monitoring report for that month, or 45 days after results for the additional samples were received, whichever is later.

When all sample results are greater than or equal to the reported Minimum Level (see Reporting Requirement II.C. of *M&RP* No. CI-6112), the numerical average of the analytical results of these samples will be used for compliance determination.

When one or more sample results are reported as “Not-Detected (ND)” or “Detected, but Not Quantified (DNQ)” (see Reporting Requirement II.C. of *M&RP* No. CI-6112), the median value of these samples shall be used for compliance determination. If one or both of the middle values is ND or DNQ, the median shall be the lower of the two middle values.

- c. In the event of noncompliance with a monthly average effluent limitation, the sampling frequency for that constituent shall be increased to weekly and shall continue at this level until compliance with the monthly average effluent limitation has been demonstrated.
 - d. If only one sample was obtained for the month or more than a monthly period and the result exceed the monthly average, then the Discharger is in violation of the monthly average limit.
3. Compliance with effluent limitations expressed as a sum of several constituents – If the sum of the individual pollutant concentrations is greater than the effluent limitation, then the Discharger is out of compliance. In calculating the sum of the concentrations of a group of pollutants, consider constituents reported as ND or DNQ to have concentrations equal to zero, provided that the applicable ML is used.
 4. Compliance with effluent limitations expressed as a median – in determining compliance with a median limitation, the analytical results in a set of data will be arranged in Order of magnitude (either increasing or decreasing Order); and
 - a. If the number of measurements (n) is odd, then the median will be calculated as $= X_{(n+1)/2}$, or
 - b. If the number of measurements (n) is even, then the median will be calculated as $= [X_{n/2} + X_{(n/2)+1}]$, i.e. the midpoint between the n/2 and n/2+1 data points.
- H.** In calculating mass emission rates from the monthly average concentrations, use one half of the method detection limit for “Not Detected” (ND) and the estimated concentration for “Detected, but Not Quantified” (DNQ) for the calculation of the monthly average concentration. To be consistent with section III.H.3., if all pollutants belonging to the same group are reported as ND or DNQ, the sum of the individual pollutant concentrations should be considered as zero for the calculation of the monthly average concentration.

IV. REOPENERS

- A.** This Order may be reopened and modified, in accordance with SIP Section 2.2.2.A, to incorporate new limits based on future RPA to be conducted, upon completion of the collection of additional data by the Discharger.
- B.** This Order may be reopened and modified, to incorporate in accordance with the provisions set forth in 40 CFR Parts 122 and 124, to include requirements for the implementation of the watershed management approach.
- C.** This Order may be reopened and modified, in accordance with the provisions set forth in 40 CFR Parts 122 and 124, to include new minimum levels (MLs) for each pollutant.
- D.** This Order may be reopened and modified, to revise effluent limitations as a result of future Basin Plan Amendments.

- E. This Order may be reopened upon the submission by the Discharger, of adequate information, as determined by the Regional Water Board, to provide for dilution credits or a mixing zone, as may be appropriate.
- F. This Order may also be reopened and modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR sections 122.44, 122.62 to 122.64, 125.62, and 125.64. Causes for taking such actions include, but are not limited to, failure to comply with any condition of this order and permit, endangerment to human health or the environment resulting from the permitted activity.

V. EXPIRATION DATE

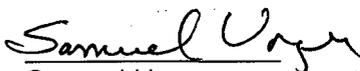
This Order expires on April 10, 2012.

The Discharger must file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of such date as application for issuance of new waste discharge requirements.

VI. RESCISSION

Order No. 98-020, adopted by this Regional Water Board on March 2, 1998, is hereby rescinded except for enforcement purposes.

I, Samuel Unger, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on October 7, 2010.



Samuel Unger
Executive Officer

Figure 1. Castaic Power Plant (Pump Storage) facility Location

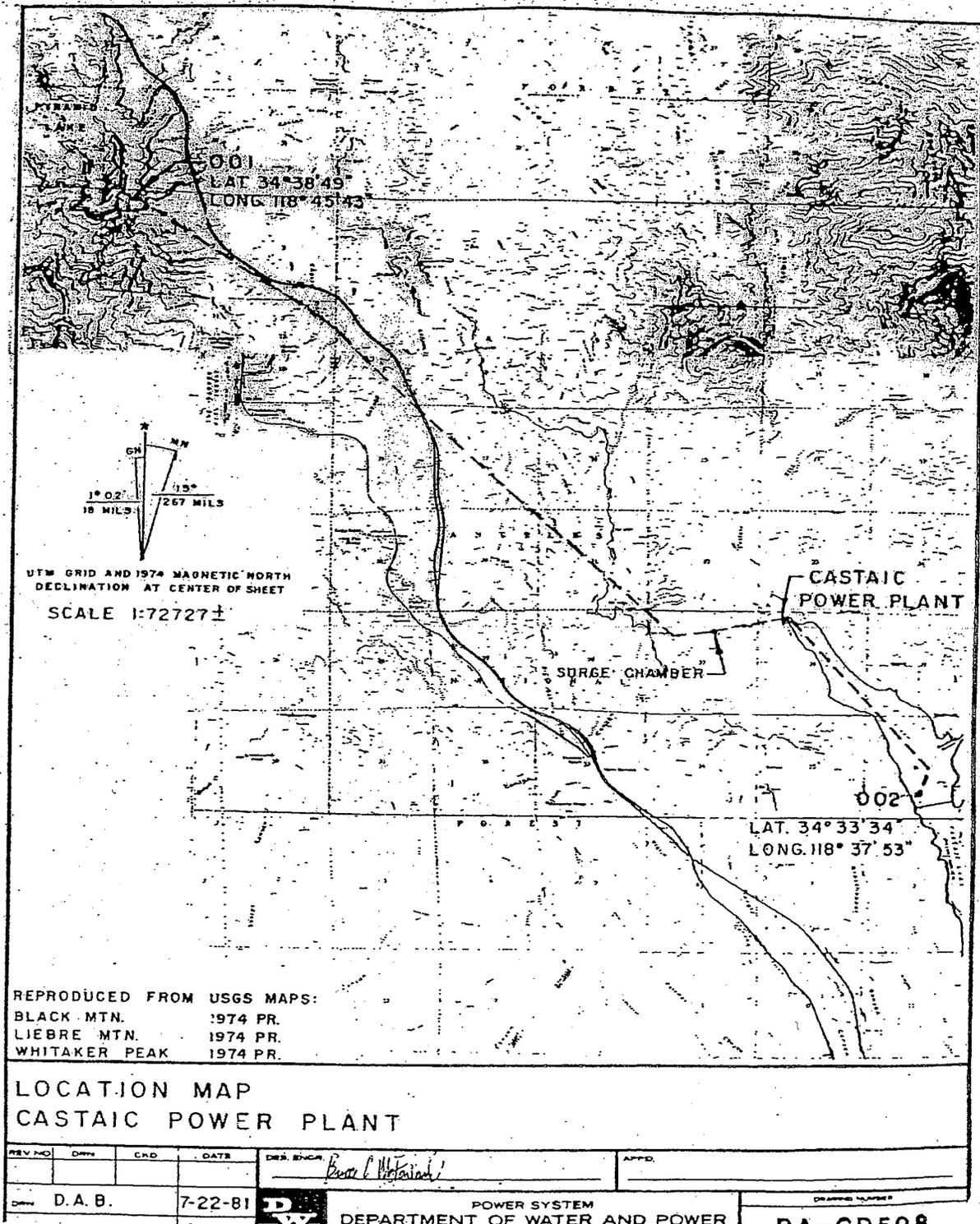
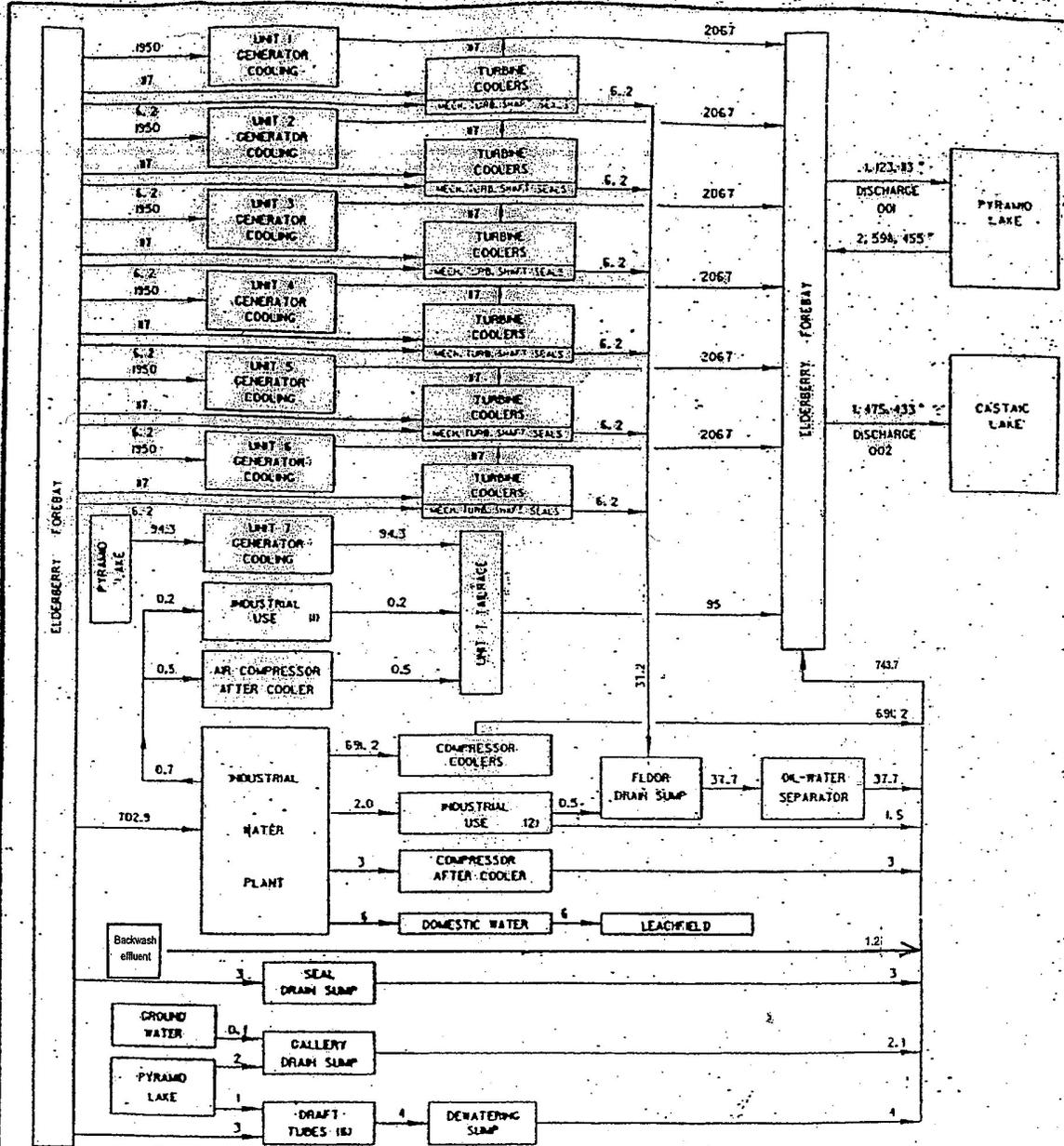
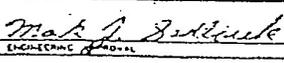
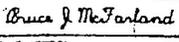
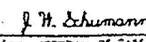
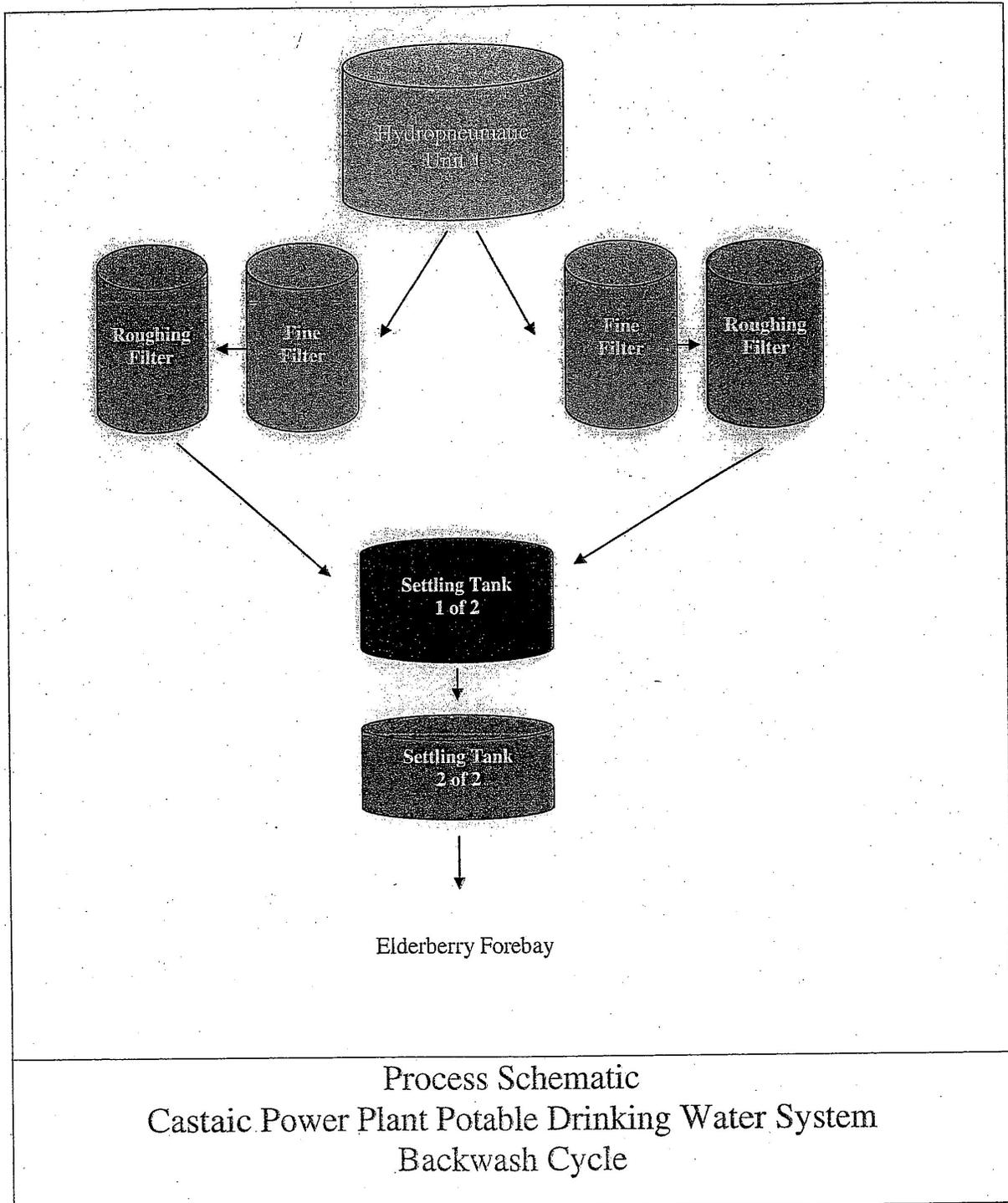


Figure 2. Castaic Power Plant (Pump Storage) Process Flow Diagram



Notes:
 All flows are in thousands of gallons per day.
 Includes design flows through the turbine/generators.

REVISION			SCHEMATIC OF WATER FLOW CASTAIC POWER PLANT				
NO 2	DRN KCC	CD NS					
 ENGINEERING APPROVAL			DRN	CAD	 ENGINEERING APPROVAL	 FINAL APPROVAL RELEASE SIGNATURE	8-10-82
FINAL APPROVAL RELEASE SIGNATURE DATE			JCM	JOB	POWER SYSTEM DEPARTMENT OF WATER AND POWER		
DESCRIPTION			DRAWING NUMBER				
D0711:CHA24 MISC. REV.			DAL-00500				



STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

STANDARD PROVISIONS, GENERAL MONITORING AND
REPORTING REQUIREMENTS

"ATTACHMENT N"

A. General Requirements

1. Neither the disposal nor any handling of wastes shall cause pollution or nuisance.
2. Wastes discharged shall not contain any substances in concentrations toxic to human, animal, plant, or aquatic life.
3. This discharge shall not cause a violation of any applicable water quality standards for receiving waters adopted by the Regional Board or the State Water Resources Control Board as required by the Federal Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Clean Water Act, and amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.
4. Wastes discharged shall not contain visible color, oil or grease, and shall not cause the appearance of color, grease, oil or oily slick, or persistent foam in the receiving waters or on channel banks, walls, inverters or other structures.
5. Wastes discharged shall not increase the natural turbidity of the receiving waters at the time of discharge.
6. Wastes discharged shall not cause the formation of sludge deposits.
7. Wastes discharged shall not damage flood control structures or facilities.
8. Oil or oily material, chemicals, refuse, or other pollutionable materials shall not be stored or deposited in areas where they may be picked up by rainfall and carried off of the property and/or discharged to surface waters. Any spill of such materials shall be contained and removed immediately.
9. The pH of wastes discharged shall at all times be within the range 6.0 to 9.0.
10. The temperature of wastes discharged shall not exceed 100° F.
11. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.

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12. Effluent limitations, national standards of performance and toxic and pretreatment effluent standards established pursuant to Sections 301, 302, 303(d), 304, 306, 307, 316, 318 and 405 of the Federal Clean Water Act and amendments thereto are applicable to the discharge.

B. General Provisions

1. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the discharger from his liabilities under federal, state, or local laws, nor guarantee the discharger a capacity right in the receiving waters.
2. These requirements do not exempt the operator of the waste disposal facility from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this waste disposal facility, and they leave unaffected any further restraints on the disposal of wastes at this site which may be contained in other statutes or required by other agencies.
3. The discharger must comply with all of the terms, requirements, and conditions of this order. Any violation of this order constitutes a violation of the Clean Water Act, its regulations and the California Water Code, and is grounds for enforcement action, Order termination, Order revocation and reissuance, denial of an application for reissuance; or a combination thereof.
4. A copy of these waste discharge specifications shall be maintained at the discharge facility so as to be available at all times to operating personnel.
5. Any discharge of wastes at any point(s) other than specifically described in this Order is prohibited, and constitutes a violation of the Order.
6. The Regional Board, EPA, and other authorized representatives shall be allowed:
 - a) Entry upon premises where a regulated facility is located or conducted, or where records are kept under conditions of this Order;
 - b) Access to copy any records that are kept under the conditions of this Order;
 - c) To inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and

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- (d) To photograph, sample, and monitor for the purpose of assuring compliance with this Order, or as otherwise authorized by the Clean Water Act and the California Water Code.
7. If the discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the discharger must apply for and obtain a new Order.
 8. The discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. If a toxic effluent standard or prohibition is established for toxic pollutant which is present in the discharge authorized herein and such standard or prohibition is more stringent than any limitation upon such pollutant in this Order, the Board will revise or modify this Order in accordance with such toxic effluent standard or prohibition and so notify the discharger.
 9. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:
 - (a) Violation of any term or condition contained in this Order;
 - (b) Obtaining this Order by misrepresentation, or failure to disclose all relevant facts;
 - (c) A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
 10. In the event the discharger is unable to comply with any of the conditions of this Order due to:
 - (a) breakdown of waste treatment equipment;
 - (b) accidents caused by human error or negligence; or
 - (c) other causes such as acts of nature,

the discharger shall notify the Executive Officer by telephone as soon as he or his agents have knowledge of the incident and confirm this notification in writing within two weeks of the telephone notification. The written notification shall include pertinent information explaining reasons for the noncompliance and shall indicate

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- what steps were taken to correct the problem and the dates thereof, and what steps are being taken to prevent the problem from recurring.
11. If there is any storage of hazardous or toxic materials or hydrocarbons at this facility and if the facility is not manned at all times, a 24-hour emergency response telephone number shall be prominently posted where it can easily be read from the outside.
 12. The discharger shall take all reasonable steps to minimize or prevent any discharge that has a reasonable likelihood of adversely affecting human health or the environment.
 13. The discharger shall at all times properly operate and maintain all facilities and systems of treatment and control including sludge use and disposal facilities (and related appurtenances) that are installed or used by the discharger to achieve compliance with this Order. Proper operation and maintenance includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar system that are installed by a discharger only when necessary to achieve compliance with the conditions of this Order.
 14. This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the discharger for a modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.
 15. This Order does not convey any property rights of any sort, or any exclusive privilege.
 16. The discharger shall furnish, within a reasonable time, any information the Regional Board or EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The discharger shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.
 17. All applications, reports, or information submitted to the Regional Board shall be signed:
 - (a) In the case of corporations, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which discharge originates;
 - (b) In the case of a partnership, by a general partner;

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- (c) In the case of a sole proprietorship, by the proprietor;
 - (d) In the case of municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.
18. The discharger shall notify the Board of:
- (a) new introduction into such works of pollutants from a source which could be a new source as defined in section 306 of the Federal Clean Water Act, or amendments thereto, if such source were discharging pollutants to the waters of the United States,
 - (b) new introductions of pollutants into such works from a source which would be subject to Section 301 of the Federal Clean Water Act, or amendments thereto, if substantial change in the volume or character of pollutants being introduced into such works by a source introducing pollutants into such works at the time the waste discharge requirements were adopted.

Notice shall include a description of the quantity and quality of pollutants and the impact of such change on the quantity and quality of effluent from such publicly owned treatment works. A substantial change in volume is considered an increase of ten percent in the mean dry-weather flow rate. The discharger shall forward a copy of such notice directly to the Regional Administrator.

19. The discharger shall notify the Board not later than 120 days in advance of implementation of any plans to alter production capacity of the product line of the manufacturing, producing or processing facility by more than ten percent. Such notification shall include estimates of proposed production rate, the type of process, and projected effects on effluent quality. Notification shall include submittal of a new report of waste discharge appropriate filing fee.
20. The discharger shall give advance notice to the Regional Board as soon as possible of any planned physical alterations or additions to the facility or of any planned changes in the facility or activity that may result in noncompliance with requirements.
21. The discharger shall file with the Board a report of waste discharge at least 120 days before making any material change or proposed change in the character, location or volume of the discharge.
22. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Regional Board as soon as they know or have reason to believe:

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- (a) that any activity has occurred or will occur that would result in the discharge of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels:"
 - (i) One hundred micrograms per liter (100 µg/l);
 - (ii) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
 - (iii) Five (5) times the maximum concentration value reported for that pollutant in the permit application; or
 - (iv) The level established by the Regional Board in accordance with 40 CFR 122.44(f).
 - (b) that they have begun or expect to begin to use or manufacture intermediate or final product or byproduct of any toxic pollutant that was not reported on their application.
23. Bypass (the intentional diversion of waste streams from any portion of a treatment facility) is prohibited. The Regional Board may take enforcement action against the discharger for bypass unless:
- (a) Bypass was unavoidable to prevent loss of life, personal injury or severe property damage. (Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.);
 - (b) There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated waste, or maintenance during normal periods of equipment down time. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass that could occur during normal periods of equipment downtime or preventive maintenance; and
 - (c) The discharger submitted a notice at least ten days in advance of the need for a bypass to the Regional Board.

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The discharger may allow a bypass to occur that does not cause effluent limitations to be exceeded, but only if it is for essential maintenance to assure efficient operation. In such a case, the above bypass conditions are not applicable. The discharger shall submit notice of an unanticipated bypass as required in E-16.

24. A discharger that wishes to establish the affirmative defense of an upset in an action brought for non-compliance shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
- (a) an upset occurred and that the discharger can identify the cause(s) of the upset;
 - (b) the permitted facility was being properly operated by the time of the upset;
 - (c) the discharger submitted notice of the upset as required in E-16; and
 - (d) the discharger complied with any remedial measures required.

No determination made before an action for noncompliance, such as during administrative review of claims that non-compliance was caused by an upset, is final administrative action subject to judicial review.

In any enforcement proceeding, the discharger seeking to establish the occurrence of an upset has the burden of proof.

25. This Order is not transferable to any person except after notice to the Regional Board. In the event of any change in name, ownership, or control of these waste disposal facilities, the discharger shall notify this Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, copy of which shall be forwarded to the Board. The Regional Board may require modification or revocation and reissuance of the Order to change the name of the discharger and incorporate such other requirements as may be necessary under the Clean Water Act.

C. Enforcement

1. The California Water Code provides that any person who violates a waste discharge requirement or a provision of the California Water Code is subject to civil penalties of up to \$5,000 per day, \$10,000 per day, or \$25,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to \$10 per gallon per day or \$25 per gallon per day of violation; or

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some combination thereof, depending on the violation, or upon the combination of violations.

Violation of any of the provisions of the NPDES program or of any of the provisions of this Order may subject the violator to any of the penalties described herein, or any combination thereof, at the discretion of the prosecuting authority; except that only one kind of penalty may be applied for each kind of violation.

2. The Federal Clean Water Act (CWA) provides that any person who violates a permit condition or any requirement imposed in a pretreatment program implementing sections 301, 302, 306, 307, 308, 318 or 405 of the CWA is subject to a civil penalty not to exceed \$25,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing these sections of the CWA is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or both. Any person who knowingly violates permit conditions implementing these sections of the CWA is subject to a fine of not less than \$5,000, or more than \$50,000 per day of violation, or by imprisonment for not more than 3 years, or by both.
3. It shall not be a defense for a discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order.
4. The Clean Water Act provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, or other document submitted or required to be maintained under this Order, or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained under this act, shall upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 2 years per violation, or by both.

D. Monitoring Requirements

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. The discharger shall retain records of all monitoring information, including all calibration and maintenance monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the Report of Waste Discharge and application for this Order, for a period of at least five(5) years from the date of the sample, measurement, report, or application. This period may be extended by request of the Regional Board or EPA at any time and shall be extended during the course of any unresolved litigation regarding this discharge.

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3. Records of monitoring information shall include:
 - (a) The date, exact place, and time of sampling or measurements;
 - (b) The individual(s) who performed the sampling or measurements;
 - (c) The date(s) analyses were performed;
 - (d) The individual(s) who performed the analyses;
 - (e) The analytical techniques or methods used; and
 - (f) The results of such analyses.
4. All sampling, sample preservation, and analyses must be conducted according to test procedures under 40 CFR Part 136, unless other test procedures have been specified in this Order.
5. All chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by an appropriate governmental regulatory agency.
6. The discharger shall calibrate and perform maintenance procedures on all monitoring instruments and to insure accuracy of measurements, or shall insure that both equipment activities will be conducted.
7. The discharger shall have, and implement, an acceptable written quality assurance (QA) plan for laboratory analyses. The annual monitoring report required in E-8 shall also summarize the QA activities for the previous year. Duplicate chemical analyses must be conducted on a minimum of ten percent (10%) of the samples, or at least one sample per sampling period, whichever is greater. A similar frequency shall be maintained for analyzing spiked samples.

When requested by the Board or EPA, the discharger will participate in the NPDES discharge monitoring report QA performance study. The discharger must have a success rate equal to or greater than 80%.
8. Effluent samples shall be taken downstream of any addition to treatment works and prior to mixing with the receiving waters.
9. For parameters where both 30-day average and maximum limits are specified but

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where the monitoring frequency is less than four times a month, the following procedure shall apply:

- (a) Initially, not later than the first week of the second month after the adoption of this permit, a representative sample shall be obtained of each waste discharge at least once per week for at least four consecutive weeks and until compliance with the 30-day average limit has been demonstrated. Once compliance has been demonstrated, sampling and analyses shall revert to the frequency specified.
- (b) If future analyses of two successive samples yield results greater than 90% of the maximum limit for a parameter, the sampling frequency for that parameter shall be increased (within one week of receiving the laboratory result on the second sample) to a minimum of once weekly until at least four consecutive weekly samples have been obtained and compliance with the 30-day average limit has been demonstrated again and the discharger has set forth for the approval of the Executive Officer a program which ensures future compliance with the 30-day average limit.

E. Reporting Requirements

1. The discharger shall file with the Board technical reports on self monitoring work performed according to the detailed specifications contained in any Monitoring and Reporting Programs as directed by the Executive Officer.
2. 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 discernable. The data shall be summarized to demonstrate compliance with waste discharge requirements and, where applicable, shall include results of receiving water observations.
3. For every item where the requirements are not met, the discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.
4. The discharger shall submit to the Board, together with the first monitoring report required by this permit, a list of all chemicals and proprietary additives which could affect this waste discharge, including quantities of each. Any subsequent changes in types and/or quantities shall be reported promptly.
5. The discharger shall file a technical report with this Board not later than 30 days after receipt of this Order, relative to the operation and maintenance program for this waste disposal facility. The information to be contained in that report shall

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include as a minimum, the following:

- (a) The name and address of the person or company responsible for operation and maintenance of the facility.
- (b) Type of maintenance (preventive or corrective).
- (c) Frequency of maintenance, if preventive.

If an operation and maintenance report has been supplied to the Board previously and there have been no changes, a second report need not be provided.

6. Monitoring results shall be reported at the intervals specified in the monitoring and Reporting Program.
 - (a) Monitoring results must be reported on a Discharge Monitoring Report (DMR).
 - (b) If the discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR Part 136 or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
 - (c) Calculations for all limitations that require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this Order.
7. Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule of this Order shall be submitted no later than 14 days following, each schedule date.
8. By March 1 of each year, the discharger shall submit an annual report to the Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the discharger shall discuss the compliance record and the corrective actions taken or planned which may be needed to bring the discharge into full compliance with the waste discharge requirements.
9. The discharger shall include in the annual report, an annual summary of the quantities of all chemicals, listed by both trade and chemical names, which are used for cooling and/or boiler water treatment and which are discharged.
10. Each monitoring report must affirm in writing that "all analyses were conducted at a laboratory certified for such analyses by the Department of Health Services or

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approved by the Executive Officer and in accordance with current EPA guideline procedures or as specified in this Monitoring Program".

11. Each report shall contain the following completed declaration:

"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 a fine and imprisonment for knowing violations.

Executed on the ___ day of _____, 19__.

at _____.

(Signature)

(Title)"

12. If no flow occurred during the reporting period, the monitoring report shall so state.
13. For any analyses performed for which no procedure is specified in the EPA guidelines or in the monitoring and Reporting Program, the constituent or parameter analyzed and the method or procedure used must be specified in the monitoring report.
14. This Board requires the discharger to file with the Board, within 90 days after the effective date of this Order, a technical report on his preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. The technical report should:
- (a) Identify the possible sources of accidental loss, untreated waste bypass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks and pipes should be considered.
 - (b) Evaluate the effectiveness of present facilities and procedures and state when they become operational.

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- (c) Describe facilities and procedures needed for effective preventive and contingency plans.
- (d) Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule contingent interim and final dates when they will be constructed, implemented, or operational.

This Board, after review of the technical report, may establish conditions which it deems necessary to control accidental discharges and to minimize the effects of such events.

Such conditions may be incorporated as part of this Order, upon notice to the discharger.

15. In the event wastes are transported to a different disposal site during the report period, the following shall be reported in the monitoring report:

- (a) Types of wastes and quantity of each type;
- (b) Name and address for each hauler of wastes (or method of transport if other than by hauling); and
- (c) Location of the final point(s) of disposal for each type of waste.

If no wastes are transported offsite during the reporting period, a statement to that effect shall be submitted.

16. The discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the discharger becomes aware of the circumstances. A written submission shall also be provided within five days of the time the discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times and, if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The following shall be included as information that must be reported within 24 hours under this paragraph:

- (a) Any unanticipated bypass that exceeds any effluent limitation in the Order.
- (b) Any upset that exceeds any effluent limitation in the Order.
- (c) Violation of a maximum daily discharge limitation for any of the pollutants

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listed in this Order to be reported within 24 hours.

The Regional Board may waive the above-required written report on a case-by-case basis.

17. Should the discharger discover that it failed to submit any relevant facts or that it submitted incorrect information in a report, it shall promptly submit the missing or correct information.
18. The discharger shall report all instances of non-compliance not otherwise reported at the time monitoring reports are submitted. The reports shall contain all information listed in E-16.
19. Each monitoring report shall state whether or not there was any change in the discharge as described in the Order during the reporting period.
20. Analytical data reported as "less than" for the purpose of reporting compliance with permit limitations shall be the same or lower than the permit limit(s) established for the given parameter.
21. The discharger shall mail a copy of each monitoring report to:

INFORMATION TECHNOLOGY
CALIFORNIA REGIONAL WATER QUALITY
CONTROL BOARD - LOS ANGELES REGION
320 W. 4TH STREET, SUITE 200
LOS ANGELES, CA 90013

A copy of such monitoring report for those discharges designated as a major discharge shall also be mailed to:

REGIONAL ADMINISTRATOR
ENVIRONMENTAL PROTECTION AGENCY
REGION 9
75 Hawthorne Street
San Francisco, CA 94105

F. Publicly Owned Wastewater Treatment Plant Requirements
(Does not apply to any other type or class of discharger)

1. Publicly owned treatment works (POTWs) must provide adequate notice to the

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Regional Board of:

- (a) Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to sections 301 or 306 of the Clean Water Act if it were directly discharging those pollutants.
- (b) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the Order.

Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

- 2. The discharger shall file a written report with the Board within 90 days after the average dry-weather waste flow for any month equals or exceeds 75 percent of the design capacity of his waste treatment and/or disposal facilities. The discharger's senior administration officer shall sign a letter which transmits that report and certifies that the policy-making body is adequately informed about it. The report shall include:
 - (a) Average daily flow for the month, the date on which the instantaneous peak flow occurred, the rate of that peak flow, and the total flow for that day.
 - (b) The discharger's best estimate of when the average daily dry weather flow rate will equal or exceed the design capacity of his facilities.
 - (c) The discharger's intended schedule for studies, design, and other steps needed to provide additional capacity for his waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units.
- 3. The flow measurement system shall be calibrated at least once per year or more frequently, to ensure continued accuracy.
- 4. The discharger shall require any industrial user of the treatment works to comply with applicable service charges and toxic pretreatment standards promulgated in accordance with Sections 204(b), 307, and 308 of the Federal Clean Water Act or amendments thereto. The discharger shall require each individual user to submit periodic notice (over intervals not to exceed nine months) of progress toward compliance with applicable toxic and pretreatment standards developed pursuant to the Federal Clean Water Act or amendments thereto. The discharger shall forward a copy of such notice to the Board and the Regional Administrator.

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5. Collected screening, sludges, and other solids removed from liquid wastes shall be disposed of at a legal point of disposal and in accordance with the provisions of Section 405(d) of the Federal Clean Water Act and Division 7 of the California Water Code. For the purpose of this requirement, a legal point of disposal is defined as one for which waste discharge requirements have been prescribed by a Regional Water Quality Control Board and which is in full compliance therewith.
6. Supervisors and operators of publicly owned wastewater treatment plants shall possess a certificate of appropriate grade in accordance with regulations adopted by the State Water Resources Control Board.

The annual report required by E-8 shall address operator certification and provide a list of current operating personnel and their grade of certification. The report shall include the date of each facility's Operation and Maintenance Manual, the date the manual was last reviewed, and whether the manual is complete and valid for the current facilities. The report shall restate, for the record, the laboratories used by the discharger to monitor compliance with this order and permit and provide a summary of performance.

G. Definitions

1. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility whose operation is necessary to maintain compliance with the terms and conditions of this Order.
2. "Composite sample" means, for flow rate measurements, the arithmetic mean of no fewer than eight individual measurements taken at equal intervals for 24 hours or for the duration of discharge, whichever is shorter.

"Composite sample" means, for other than flow rate measurement,

- (a) A combination of at least eight individual portions obtained at equal time intervals for 24 hours, or the duration of the discharge, whichever is shorter. The volume of each individual portion shall be directly proportional to the discharge flow rate at the time of sampling;

OR

- (b) A combination of at least eight individual portions of equal volume obtained over a 24-hour period. The time interval will vary such that the volume of wastewater discharged between samplings remains constant.

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The compositing period shall equal the specified sampling period, or 24 hours, if no period is specified.

3. "Daily discharge" means:
- (a) For flow rate measurements, the average flow rate measured during a calendar day or during any 24-hour period reasonably representative of the calendar day for purposes of sampling.
 - (b) For pollutant measurements, the concentration or mass emission rate measured during a calendar day or during any 24-hour period reasonably representative of the calendar day for purposes of sampling.

4. The "daily discharge rate" shall be obtained from the following calculation for any calendar day:

$$\text{Daily discharge rate} = \frac{\sum_{i=1}^N (Q_i)(C_i)}{N}$$

in which N is the number of samples analyzed in any calendar day, Q_i and C_i are the rate (MGD) and the constituent concentration (mg/l) respectively, which are associated with each of the N grab samples which may be taken in any calendar day. If a composite sample is taken, C_i is the concentration measured in the composite sample and Q_i is the average flow rate occurring during the period over which samples are composited.

5. "Daily maximum" limit means the maximum acceptable "daily discharge" for pollutant measurements. Unless otherwise specified, the results to be compared to the "daily maximum" limit are based on composite samples.
6. "Duly authorized representative" is one whose:
- (a) Authorization is made in writing by a principal executive officer or ranking elected official;
 - (b) Authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

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- (c) Written authorization is submitted to the Regional Board and EPA Region 9. If an authorization becomes no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements above must be submitted to the Regional Board and EPA Region 9 prior to or together with any reports, information, or applications to be signed by an authorized representative.
7. "Grab sample" is defined as any individual sample collected in a short period of time not exceeding 15 minutes. "Grab samples" shall be collected during normal peak loading conditions for the parameter of interest, which may or may not be during hydraulic peaks. It is used primarily in determining compliance with "daily maximum" limits and the "instantaneous maximum" limits.
 8. "Hazardous substance" means any substance designated under 40 CFR 116 pursuant to Section 311 of the Clean Water Act.
 9. "Heavy metals" are for purposes of this Order, arsenic, cadmium, chromium, copper, lead, mercury, silver, nickel, and zinc.
 10. "Instantaneous maximum" concentration is defined as the maximum value measured from any single "grab sample."
 11. "Median" of an ordered set of values is the value which the values above and below is an equal number of values, or which is the arithmetic mean of the two middle values, if there is no one middle value.
 12. "Priority pollutants" are those constituents referred to in 40 CFR 401.15 and listed in the EPA NPDES Application Form 2C, pp. V-3 through V-9.
 13. "6-month median" means a moving "median" of daily values for any 180-day period in which daily values represent flow-weighted average concentrations within a 24-hour period. For intermittent discharges, the daily value shall be considered to equal zero for days on which no discharge occurred.
 14. "7-day" and "30-day average" shall be the arithmetic average of the values of daily discharge calculated using the results of analyses of all samples collected during any 7 and 30 consecutive calendar day periods, respectively.
 15. "Toxic pollutant" means any pollutant listed as toxic under section 307(a)(1) of the Clean Water Act or under 40 CFR 122, Appendix D.

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16. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with effluent limitations because of factors beyond the reasonable control of the discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper action.