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ORDER R3-2026-0001
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PERMIT CA0003751

WASTE DISCHARGE REQUIREMENTS FOR PACIFIC GAS AND ELECTRIC COMPANY DIABLO CANYON POWER PLANT DISCHARGE TO THE PACIFIC OCEAN, SAN LUIS OBISPO COUNTY

The following Discharger is subject to waste discharge requirements set forth in this Order:

Discharger	**Pacific Gas and Electric Company**
Name of Facility	**Diablo Canyon Power Plant**
Facility Address	**3890 Diablo Canyon Road** **Avila Beach, CA 93424** **San Luis Obispo County**

Table 1. Discharge Locations

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001	Treated Process Wastewater, Treated Domestic Wastewater, and Once-Through Cooling Water	35.2111149	120.856457	Pacific Ocean
002	Screen Wash Pumps Overboard	35.207794	120.856350	Pacific Ocean
003	Intake Screen Wash Water and Stormwater	35.208333	120.857778	Pacific Ocean
004	Seawater Reverse Osmosis System Discharge	35.207271	120.853363	Pacific Ocean
016	Biolab Seawater Supply Pump Valve Drain	35.207662	120.855143	Pacific Ocean
017	Seawater Reverse Osmosis System Blowdown Drain	35.207627	120.854166	Pacific Ocean

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
022	Seawater Reverse Osmosis System Supply Lines Drain	35.206470	120.853540	Pacific Ocean
026	Circulating Water Pumps Backflow	35.207652	120.855896	Pacific Ocean
027	Screen Wash System Collection Sump Overflow	35.207735	120.856111	Pacific Ocean

This Order was adopted on: **February 26, 2026**
This Order shall become effective on: **April 17, 2026**
This Order shall expire on: **April 16, 2031**

The Discharger shall file a Report of Waste Discharge as an application for reissuance of waste discharge requirements in accordance with title 23, California Code of Regulations, and an application for reissuance of a National Pollutant Discharge Elimination System permit no later than **October 18, 2030**. The U.S. Environmental Protection Agency and the California Regional Water Quality Control Board, Central Coast Region (Central Coast Water Board) have classified this discharge as follows: **major discharge.**

I, Ryan E. Lodge, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an order adopted by the Central Coast Water Board on the date indicated above.

Ryan E. Lodge

Digitally signed by Ryan E. Lodge
Date: 2026.03.16 07:54:32 -07'00'

Water Boards

Ryan E. Lodge, Executive Officer

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1. FACILITY INFORMATION

Information describing the Diablo Canyon Power Plant (DCPP; Facility) is summarized on the cover page and in sections 1 and 2 of the Fact Sheet (Attachment F). Section 1 of the Fact Sheet also includes information regarding the Facility's permit application.

2. FINDINGS

The California Regional Water Quality Control Board, Central Coast Region (Central Coast Water Board), finds:

2.1. Legal Authorities

This Order serves as waste discharge requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the California Water Code (Water Code) (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as a National Pollutant Discharge Elimination System (NPDES) permit authorizing the Discharger to discharge into waters of the United States at the discharge locations described in Table 1, subject to the WDRs in this Order.

2.2. Background and Rationale for Requirements

The Central Coast Water Board developed the requirements in this Order on information submitted as part of the application, through monitoring and reporting programs, and on other available information. The Fact Sheet (Attachment F), which contains background information and rationale for the requirements in this Order, is hereby incorporated into and constitutes findings for this Order. Attachments A through E are also incorporated into this Order.

2.3. Provisions and Requirements Implementing State Law

The provisions and requirements in subsections 5.1 and 6.3.6.4 are included to implement state law only. These provisions and requirements are not required or authorized under the federal CWA; consequently, violations of these provisions and requirements are not subject to the enforcement remedies that are available for NPDES violations.

2.4. Notification of Interested Parties

The Central Coast Water Board notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Fact Sheet.

2.5. Consideration of Public Comment

The Central Coast Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the public hearing are provided in the Fact Sheet.

2.6. Long-Term Planning and Implementation

Federal regulations limit the duration of NPDES permits to a fixed term not to exceed five years, after which permits may be administratively extended prior to renewal. Planning and instituting measures to support long-term beneficial reuse of the Facility's effluent may span multiple permit terms. As a result, this Order includes requirements the Central Coast Water Board plans to carry over into future permit terms.

2.7. Response to Climate Change

Aligning with the State Water Resources Control Board's (State Water Board) Resolution 2017-0012, this Order permits the discharge of nuclear-driven steam energy cooling water to allow the Facility to continue to provide a low-carbon alternative energy supply to meet the State of California's energy needs during its transition to clean energy. This Order also requires the Discharger to prepare a climate change response hazards and vulnerabilities plan to address climate change impacts and hazards associated with the continued operation of the Facility.

2.8. Human Right to Water

This Order does not authorize the discharge of wastes to waters that serve as a primary source of drinking water or waters that are designated with municipal or domestic water supply beneficial uses as described in the *Water Quality Control Plan for the Central Coastal Basin* (Basin Plan). Therefore, this Order is consistent with the Water Code and Resolution R3-2017-004.

2.9. Disadvantaged Community Status

The Facility is located on 750 acres of private land. The nearest community, Avila Beach, is not considered a disadvantaged community, based on 2020 census data and other resources, including the DAC Mapping tool.

2.10. California Environmental Quality Act

Under Water Code section 13389, this action to adopt an NPDES permit for the discharge of waste to surface waters is exempt from the California Environmental Quality Act (CEQA) provisions in Public Resources Code, division 13, chapter 3. This action is also exempt from CEQA pursuant to 14 Public Resources Code sections 15301 (Existing Facilities) and 25548.2 subd. (b).

THEREFORE, IT IS HEREBY ORDERED that this Order supersedes Order 90-09, except for enforcement purposes, and, to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder and the provisions of the CWA and regulations and guidelines adopted

thereunder, the Discharger shall comply with the requirements in this Order. This action in no way prevents the Central Coast Water Board from taking enforcement action for violations of the previous order.

3. DISCHARGE PROHIBITIONS

3.1. The discharge of waste at any location or in a manner other than that described in this Order is prohibited.

3.2. The discharge of any waste not specifically regulated by this Order or other orders by which the Discharger is regulated, such as NPDES General Permit CAS000001, State Water Board Order WQ-2014-0057, as amended by Order WQ 2015-0122-DWQ and Order WQ 2018-0028-DWQ, *General Permit for Discharges of Storm Water Associated with Industrial Activities* (Industrial General Permit), is prohibited.

3.3. The discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste into the ocean is prohibited.

3.4. Discharge of radioactive waste shall not degrade marine life.

3.5. The discharge of municipal and industrial waste sludge, including digester supernatant, directly into the ocean or into a waste stream that discharges to the ocean is prohibited.

3.6. The bypass or overflow of untreated wastes containing concentrations of pollutants in excess of those in Table 3 or Table 4 of the State Water Board's *Water Quality Control Plan for Ocean Waters of California* (2019) (Ocean Plan) is prohibited, except as provided for in Attachment D, Standard Provisions 1.7 (Bypass).

3.7. The discharge of trash to surface waters of the state or the deposition of trash where it may be discharged into surface waters of the state is prohibited.

3.8. The discharge of untreated or partially treated sanitary wastes and discharge of septic tank effluent to surface waters are prohibited.

3.9. The discharge of polychlorinated biphenyl compounds (PCBs) is prohibited.

3.10. The discharge of oil or any residual products of petroleum products to waters of the state, except in accordance with waste discharge requirements or other provisions of division 7 of the California Water Code, is prohibited.

4. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

4.1. Effluent Limitations and Discharge Specifications

4.1.1. Final Effluent Limitations – Discharge Point 001[1]

[1] Discharge Point 001 is a combination of once-through cooling water and in-plant waste streams that consist of low-volume waste source wastewater and metal cleaning source wastewater (when metal cleaning activities are occurring). To ensure that the discharge from each individual waste stream is in compliance with 40 CFR part 423, 40 CFR section 122.45 subd. (h), and the Ocean Plan, effluent limitations have been established at the internal discharge point of each waste stream before

4.1.1.1. The Discharger shall maintain compliance with the effluent limitations in Table 2 below for commingled once-through cooling water and in-plant waste streams effluent at Discharge Point 001, with compliance measured at Monitoring Location EFF-001 as described in the Monitoring and Reporting Program (MRP), Attachment E.

Table 2. Effluent Limitations – Discharge Point 001

Parameter	Units	6-Month Median[1]	Maximum Daily[2]	Instantaneous Maximum (Inst Max)[3]
Flow	million gallons per day (MGD)		2,760	
Total Residual Chlorine	micrograms per liter (µg/L)	7.8	31.2	200
	pounds per day (lbs/day)[4]	165	660	
Chromium (VI), Total Recoverable[5]	µg/L	7.8	31	78
	lbs/day[4]			1,652
Lead, Total Recoverable	µg/L	7.8	31	78
	lbs/day[4]			1,652
Mercury, Total Recoverable	µg/L	0.15	0.62	1.6
	lbs/day[4]			33
Nickel, Total Recoverable	µg/L	20	78	195
	lbs/day[4]			4,131
Silver, Total Recoverable	µg/L	2.3	10	27
	lbs/day[4]			568
Cyanide, Total[6]	µg/L	3.9	16	39
	lbs/day[4]			826
Non-Chlorinated Phenolic Compounds	µg/L	117	468	1,170
	lbs/day[4]			24,785
Chlorinated Phenolic Compounds	µg/L	3.9	16	39
	lbs/day[4]			826

[1] The six-month median limit shall apply as 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 equal to zero for days on which no discharge occurred.

[2] The daily maximum limits generally apply to flow-weighted, 24-hour composite samples. Refer to Table E-4 for additional notes on total chlorine residual.

commingling with other waste streams and being discharged through Discharge Point 001. See, Fact Sheet, sections 4 and 4.2.3 for further explanation.

[3] The instantaneous maximum limits generally apply to grab sample determinations.

[4] The mass-based (lbs/day) effluent limitations in Table 2 were calculated using Equation 3 of the Ocean Plan as follows:
lbs/day = 0.00834 x Ce x Q, where Ce = concentration-based effluent limit (µg/L) and Q = maximum flow rate reported in the Report of Waste Discharge (ROWD) at Discharge Point 001 of 2,540 MGD.

[5] The Discharger may, at its option, apply the effluent limitation for hexavalent chromium as total chromium.

[6] If the Discharger can demonstrate to the satisfaction of the Central Coast Water Board (subject to USEPA approval) that an analytical method is available to reliably distinguish between strongly and weakly complexed cyanide, effluent limitations for cyanide may be met by the combined measurement of free cyanide, simple metal alkali cyanides, and weakly complexed organometallic cyanide complexes. For the analytical method to be acceptable, the recovery of free cyanide from metal complexes must be comparable to that achieved by the approved method in title 40 of the Code of Federal Regulations (CFR) part 136, as revised May 14, 1999.

4.1.1.2. Temperature

The daily average discharge temperature shall not exceed the daily average natural temperature of the intake water by more than 22 degrees Fahrenheit (ºF) [12.2 degrees Celsius (ºC)].

4.1.1.3. Chlorine Discharge Time

In addition to the instantaneous maximum effluent limitation listed, total residual chlorine may not be discharged from any single generating unit for more than four hours from each condenser unit. At least 30 minutes must separate the chlorine discharge from each condenser unit.

Water quality objectives (WQOs) for total chlorine residual applying to intermittent discharges not exceeding two hours shall be determined using the following equation: logy=- 0.43(logx)+1.8, where y = the WQO in micrograms per liter (µg/L) to apply when chlorine is being discharged and x = the duration of uninterrupted chlorine discharge in minutes. The applicable effluent limitation must then be determined using Equation 1 from the Ocean Plan.

4.1.2. Internal Effluent Limitations

4.1.2.1. Combined Flow-Weighted Low-Volume Waste Streams (INT-001)

The Discharger shall maintain compliance with the internal effluent limitations in Table 3 below using a composite sample taken for each individual internal Discharge Points 001D, 001F, 001G, 001H, 001J, 001L, 001M, 001N, 001P, and 001Q, at Monitoring Locations INT-001D, INT-001F, INT-001G, INT-001H, INT-001J, INT-001L, INT-001M, INT-001N, INT-001P, and INT-001Q as described in the MRP, Attachment E. The Discharger shall then use equation in footnote 2 of Table 3 to calculate the mass emission rate from each internal discharge point and report the sum of the individual results. The flow rate used

to determine the proportion of each individual low-volume waste stream discharge in the composited sample shall be the actual flow rate (preferred) or the estimated flow rate for the day on which samples are collected.

Table 3. Internal Effluent Limitations – Discharge Point INT-001

Parameter	Units	6-Month Median[1]	Maximum Daily[1]
Chromium (VI), Total Recoverable[3]	lbs/day[2]	0.30	1.2
Lead, Total Recoverable	lbs/day[2]	0.30	1.2
Mercury, Total Recoverable	lbs/day[2]	0.0057	0.024
Nickel, Total Recoverable	lbs/day[2]	0.76	3.0
Silver, Total Recoverable	lbs/day[2]	0.088	0.38
Cyanide, Total[4]	lbs/day[2]	0.15	0.61
Non-Chlorinated Phenolic Compounds	lbs/day[2]	4.5	18
Chlorinated Phenolic Compounds	lbs/day[2]	0.15	0.61

[1] Compliance shall be determined from the sum of mass discharges of each parameter in the individual in-plant waste streams.

[2] The mass-based (lbs/day) effluent limitations in Table 3 were calculated using Equation 3 of the Ocean Plan as follows:
lbs/day = 0.00834 x Ce x Q, where Ce = concentration-based effluent limit (µg/L) in Table 2 for Discharge Point 001 and Q = maximum combined flow rate reported in the ROWD at for all in-plant waste streams of 4.57 MGD.

[3] The Discharger may, at its option, apply the effluent limitation for hexavalent chromium as total chromium.

[4] If the Discharger can demonstrate to the satisfaction of the Central Coast Water Board (subject to USEPA approval) that an analytical method is available to reliably distinguish between strongly and weakly complexed cyanide, effluent limitations for cyanide may be met by the combined measurement of free cyanide, simple metal alkali cyanides, and weakly complexed organometallic cyanide complexes. For the analytical method to be acceptable, the recovery of free cyanide from metal complexes must be comparable to that achieved by the approved method in 40 CFR part 136, as revised May 14, 1999.

4.1.2.2. Individual Low-Volume Waste Streams

The Discharger shall maintain compliance with the internal effluent limitations in Table 4 below for individual low-volumes waste streams at internal Discharge

Points 001D, 001F, 001G, 001H, 001J, 001L, 001M,, 001P, and 001Q, with compliance measured at Monitoring Locations INT-001D, INT-001F, INT-001G, INT-001H, INT-001J, INT-001L, INT-001M, INT-001P, and INT-001Q as described in the MRP, Attachment E.

Table 4. Internal Effluent Limitations – Discharge Points 001D, 001F, 001G, 001H, 001J, 001L, 001M, 001P, and 001Q

Parameter	Units	Average Monthly	Maximum Daily
Total Suspended Solids (TSS)	milligrams per liter (mg/L)	30	100
Oil and Grease	mg/L	15	20

4.1.2.3. Metal Cleaning Waste Streams

When metal cleaning activities are occurring, the Discharger shall maintain compliance with the effluent limitations in Table 5 below at internal Discharge Points 001D, 001F, 001H, 001J, 001L, and 001M, with compliance measured at Monitoring Locations INT-001D, INT-001F, INT-001H, INT-001J, INT-001L, and INT-001M as described in the MRP, Attachment E.

Table 5. Internal Effluent Limitations – Discharge Points 001D, 001F, 001H, 001J, 001L, and 001M

Parameter	Units	30-Day Average	Maximum Daily
TSS	mg/L	30	100
Oil and Grease	mg/L	15	20
Copper, Total Recoverable	mg/L		1.0
Iron, Total Recoverable	mg/L		1.0

4.1.2.4. Sanitary Waste Stream

The Discharger shall maintain compliance with the internal effluent limitations in Table 6 below for the sanitary waste stream discharged at internal Discharge Point 001N, with compliance measured at Monitoring Location INT-001N as described in the MRP, Attachment E.

Table 6. Internal Effluent Limitations – Discharge Point 001N

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Inst Max
Biochemical Oxygen Demand 5-day @ 20 ºC (BOD_5)	mg/L	30	45		
TSS	mg/L	30	45	100[1]	

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Inst Max
Oil and Grease	mg/L	15		20	
Settleable Solids	milliliters per liter (mL/L)	1.0	1.5	3.0	
Turbidity	nephelometric turbidity units (NTU)	75	100		225

[1] The maximum daily limit for TSS is derived from the low-volume waste stream limits in Table 4.

4.1.2.4.1. Percent Removal

The average monthly percent removal of biochemical oxygen demand 5-day @ 20 ºC (BOD_5) and total suspended solids (TSS) at internal Discharge Point 001N shall not be less than 85 percent.

4.1.3. Final Effluent Limitations – Discharge Point 003

4.1.3.1. The Discharger shall maintain compliance with the effluent limitations in Table 7 below at Discharge Point 003, with compliance measured at Monitoring Location EFF-003 as described in the MRP, Attachment E.

Table 7. Effluent Limitations – Discharge Points 003

Parameter	Units	30-Day Average	Maximum Daily[2]	Inst Min	Inst Max[3]
TSS	mg/L	30	100		
Oil and Grease	mg/L	15	20		
pH	standard units (SU)			6.0[4]	9.0[4]
Tributyltin	µg/L	0.0014			
Tributyltin	lbs/day[6]	0.000067			

[1] The six-month median limit shall apply as 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 equal to zero for days on which no discharge occurred.
[2] The daily maximum limits apply to flow-weighted 24-hour composite samples.
[3] The instantaneous maximum limits apply to grab sample determinations.
[4] The pH of the effluent shall not deviate more than 0.2 SU from ambient pH levels as measured at the intake.
[5] The mass-based (lbs/day) effluent limitations in Table 7 were calculated using Equation 3 from the Ocean Plan as follows:
lbs/day = 0.00834 x Ce x Q, where Ce = concentration-based effluent limit (µg/L) and Q = maximum flow rate reported in the ROWD at Discharge Point 003 of 5.76 MGD.

4.1.4. Final Effluent Limitations – Discharge Point 004

4.1.4.1. The Discharger shall maintain compliance with the effluent limitations in Table 8 below at Discharge Point 004, with compliance measured at Monitoring Location EFF-004 as described in the MRP, Attachment E.

Table 8. Effluent Limitations – Discharge Point 004

Parameter	Units	30-Day Average	Maximum Daily[1]	Inst Min	Inst Max[2]
TSS	mg/L	30	100		
Oil and Grease	mg/L	15	20		
pH	SU			6.0[3]	9.0[3]
Tributyltin	µg/L	0.0014			
Tributyltin	lbs/day[4]	0.000020			

[1] The daily maximum limits apply to flow-weighted 24-hour composite samples.
[2] The instantaneous maximum limits apply to grab sample determinations.
[3] The pH of the effluent shall not deviate more than 0.2 SU from ambient pH levels as measured at the intake.
[4] The mass-based (lbs/day) effluent limitations in Table 8 were calculated using Equation 3 from the Ocean Plan as follows:
lbs/day = 0.00834 x Ce x Q, where: Ce = concentration-based effluent limit (µg/L) and Q = maximum flow rate reported in the ROWD at Discharge Point 004 of 1.73 MGD.

4.1.5. Interim Effluent Limitations – Discharge Points 003 and 004

4.1.5.1 This Order includes new effluent limitations that that were not previously imposed. Consistent with section 1.e. of the State Water Board's Resolution 2008-0025, *Policy for Compliance Schedules in National Pollutant Discharge Elimination System Permits*, the Discharger shall have up to five years to implement actions specified in Table 12 to comply with new effluent limitations. The interim effluent limitations in Table 9 shall apply from the effective date of this Order until the expiration dates of the compliance schedule in Table 12.

Table 9. Interim Effluent Limitations – Discharge Points 003 and 004

Parameter	Units	30-Day Average
Tributyltin	µg/L	0.011

4.1.6. Final Effluent Limitations – External Discharge Points 002, 016, 017, 022, 026, and 027

4.1.6.1. The Discharger shall maintain compliance with the effluent limitations in Table 10 below for low-volumes waste streams at Discharge Points 002, 016, 017, 022, 026, and 027, with compliance measured at Monitoring Locations EFF-002, EFF-016, EFF-017, EFF-022, EFF-026, and EFF-027 as described in the MRP, Attachment E.

Table 10. Effluent Limitations – Discharge Points 002, 016, 017, 022, 026, and 027

Parameter	Units	30-Day Average	Maximum Daily[1]	Inst Min	Inst Max[2]
TSS	mg/L	30	100		
Oil and Grease	mg/L	15	20		
pH	SU			6.0[3]	9.0[3]

[1] The daily maximum limits apply to flow-weighted 24-hour composite samples.
[2] The instantaneous maximum limits apply to grab sample determinations.
[3] The pH of the effluent shall not deviate more than 0.2 SU from ambient pH levels as measured at the intake.

4.2. Land Discharge Specifications – Not Applicable

4.3. Recycling Specifications – Not Applicable

5. RECEIVING WATER LIMITATIONS

5.1 Surface Water Limitations

5.1.1. The natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption shall not be altered as a result of the discharge.

6. PROVISIONS

6.1. Standard Provisions

6.1.1. The Discharger shall comply with all Standard Provisions included in Attachment D, both federal NPDES standard provisions from 40 CFR part 122, as well as Central Coast Water Board's standard provisions.

6.1.2. In the event that there is any conflict, duplication, or overlap between the Standard Provisions included in Attachment D or the Central Coast Water Board's standard provisions and the provisions specified by this Order, the more stringent provision shall apply.

6.1.3. Failure to comply with provisions or requirements of this Order or violation of other applicable laws or regulations governing discharges from this Facility may subject the Discharger to administrative or civil liability, criminal penalties, and/or other enforcement remedies. Additionally, certain violations may subject the Discharger to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.

6.2. MRP Requirements

Pursuant to Water Code sections 13267 and 13383, the Discharger shall comply with the MRP, and future revisions thereto, and all notification and general reporting requirements throughout this Order. Where notification or general reporting requirements conflict with those stated in the MRP (e.g., annual report due date), the Discharger shall comply with the MRP requirements. All monitoring shall be

conducted according to 40 CFR part 136, *Guidelines Establishing Test Procedures for Analysis of Pollutants,* or other approved alternate test methods.

6.3. Special Provisions

6.3.1. Reopener Provisions

6.3.1.1. The Central Coast Water Board may modify or revoke and reissue this Order to include an effluent limitation if monitoring establishes that the discharge causes or contributes to or has the reasonable potential to cause or contribute to an excursion above an Ocean Plan Table 3 WQO or if modification of the Order is necessary to make it consistent with any new policy, law, or regulation in accordance with NPDES regulations at 40 CFR parts 122 and 124, as necessary, to include appropriate conditions or limits based on newly available information, to implement any new state WQOs that are approved by USEPA, or to implement any waste load allocation established by a total maximum daily load approved after adoption of this Order. As effluent is further characterized through additional monitoring, and if a need for additional effluent limitations becomes apparent after additional effluent characterization, the Order may be reopened to incorporate such limitations.

6.3.1.2. The Central Coast Water Board may modify or revoke and reissue this Order based on the need for continued operation to maintain the reliability of the electric system or to incorporate changes from new laws or decisions by the California Independent System Operator or California Public Utilities Commission.

6.3.1.3. The Central Coast Water Board may modify or revoke and reissue this Order based on the need to incorporate future changes to the State Water Board's *Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling* (OTC Policy) that may be applicable to the Facility.

6.3.1.4 The Central Coast Water Board may modify or revoke and reissue this Order based on the results of the revised dilution study required in Section 6.3.2.2. if the dilution ratio is found to be different than that applied in Section 4 of this Order and as described in Section 4.3 of the Fact Sheet (Attachment F).

6.3.1.5. The Central Coast Water Board may modify this Order in accordance with the provisions set forth in 40 CFR sections 122 to 124 to include new minimum levels (MLs).

6.3.1.6. The Central Coast Water Board may modify or revoke and reissue this Order if present or future investigations, including the results of the Sea Foam study required in Section 6.3.2.3., demonstrate that the discharges governed by this Order will cause, have the potential to cause, or will contribute to adverse impacts on water quality and/or beneficial uses of the receiving waters.

6.3.1.7. The Central Coast Water Board may modify, revoke and reissue, or terminate this Order 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, endangerment to human health or the environment resulting from the permitted activity, or acquisition of newly obtained information that would have justified the application of different conditions if known at the time of Order adoption and issuance. The filing of a request by the Discharger for an Order modification, revocation and reissuance, or termination or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

6.3.1.8. The Central Coast Water Board may modify or revoke and reissue this Order based on violation of any term or condition contained in this Order.

6.3.1.9. The Central Coast Water Board may modify, revoke and reissue, or terminate this Order if the Order was obtained by misrepresentation or by failure to disclose fully all relevant facts.

6.3.1.10. The Central Coast Water Board may modify or revoke and reissue this Order based on a change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

6.3.1.11. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA or amendments thereto, the Central Coast Water Board may modify this Order in accordance with such standards.

6.3.1.12 The Central Coast Water Board may modify or revoke and reissue this Order if the Discharger submits a Report of Waste Discharge (ROWD) for changed effluent volume or quality or if present or future investigations or monitoring results demonstrate that the discharges permitted by this Order have or will have a reasonable potential to cause or contribute to adverse impacts on water quality or beneficial uses of receiving waters.

6.3.1.13. The Central Coast Water Board may modify or revoke and reissue this Order in accordance with 40 CFR 122.44 (c) to incorporate any applicable standard for sewage sludge use or disposal promulgated under section 405(d) of the CWA.

6.3.2. Special Studies, Technical Reports, and Additional Monitoring Requirements

6.3.2.1. Toxicity Reduction Requirements

This provision requires the Discharger to investigate the causes of and identify corrective actions to reduce or eliminate effluent toxicity. If the discharge consistently exceeds the chronic toxicity monitoring trigger of **3.9** chronic toxicity units (TUc) at Monitoring Location EFF-001 or an effluent limitation for an Ocean Plan Table 3 WQO specified in section 4 of this Order, the Discharger shall conduct a toxicity reduction evaluation (TRE), as defined in Attachment A. The TRE shall include all reasonable steps to identify the source of toxicity. The Discharger shall take all reasonable steps to reduce toxicity to the required level once the source of toxicity is identified.

A toxicity identification evaluation (TIE) may be required as part of the TRE, if appropriate. A TIE is a set of procedures to identify the specific chemical or chemicals responsible for toxicity. These procedures are performed in three phases: characterization, identification, and confirmation using aquatic organism toxicity tests. The Discharger shall include in the TRE all reasonable steps to identify the source of toxicity. The Discharger shall take all reasonable steps to reduce toxicity to the required level once the source of toxicity is identified.

6.3.2.1.1. TRE Work Plan

Within 90 days of the effective date of this Order, the Discharger shall submit an updated copy of its TRE work plan to the Central Coast Water Board and USEPA Region 9 for review and approval. The TRE work plan shall outline the procedures for identifying the source(s) of and reducing or eliminating effluent toxicity. The TRE work plan must be developed in accordance with USEPA guidance and be of adequate detail to allow the Discharger to immediately initiate a TRE as required in this provision:

- *Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations (EPA/600/2-88/070)*
- *Toxicity Identification Evaluation, Phase I* (EPA/600/6-91/005F).
- *Methods for Aquatic Toxicity Identification Evaluations, Phase II* (EPA/600/R-92/080).
- *Methods for Aquatic Toxicity Identification Evaluations, Phase III* (EPA/600/R-92/081).

The TRE work plan shall include steps the Discharger intends to implement if toxicity is measured above a trigger and should include, at minimum, a) a description of the investigation and evaluation techniques that will be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency; b) a description of methods for maximizing in-house treatment system efficiency, good housekeeping practices, and a list of all chemicals used in operations at the Facility; and c) if a TIE is necessary, an indication of who would conduct the TIE (i.e., an in-house expert or outside contractor).

6.3.2.1.2. Accelerated Monitoring and TRE Initiation

When the numeric chronic toxicity trigger is exceeded during regular chronic toxicity monitoring and the testing meets all test acceptability criteria, the Discharger shall initiate accelerated monitoring as required in the accelerated monitoring specifications, section 6.3.2.1.3. The Discharger shall initiate a TRE to address effluent toxicity if any whole effluent toxicity (WET) testing results that exceed the numeric chronic toxicity trigger during accelerated monitoring. The Discharger shall take all reasonable steps to reduce toxicity once the source of toxicity is identified.

6.3.2.1.3. Accelerated Monitoring Specifications

If the numeric chronic toxicity trigger is exceeded during regular chronic toxicity testing, the Discharger shall initiate accelerated monitoring within 14 days of notification by the laboratory of the exceedance.

Accelerated monitoring shall consist of four chronic toxicity tests conducted once every two weeks using the species that exhibited toxicity. The following protocol shall be used for accelerated monitoring and TRE initiation:

6.3.2.1.3.1. If accelerated monitoring is triggered on the basis of a chronic toxicity trigger exceedance, accelerated WET testing shall utilize a 5-concentration plus control dilution series bracketing the discharge in-stream waste concentration (IWC), thus permitting an evaluation of magnitude of effect through point estimate (i.e., EC25) analysis.

6.3.2.1.3.2. If the chronic toxicity trigger is exceeded and the source of toxicity is known (e.g., a temporary plant upset), the Discharger shall make necessary corrections to the Facility and shall conduct one additional toxicity test using the same species and test method that exhibited toxicity. If the additional toxicity test does not exceed the chronic toxicity trigger, then the Discharger may return to the regular testing frequency. However, notwithstanding the accelerated monitoring results, if there is evidence of a pattern of recurring effluent toxicity, the Executive Officer may require that the Discharger initiate a TRE.

6.3.2.1.3.3. If the chronic toxicity trigger is exceeded, and the source of toxicity is not known, the Discharger shall conduct five additional toxicity tests conducted once every two weeks using the same species and test method that exhibited toxicity. If none of the additional toxicity tests exceed the toxicity trigger, then the Discharger may return to the regular testing frequency. However, notwithstanding the accelerated monitoring results, if there is evidence of a pattern of recurring effluent toxicity, the Executive Officer may require that the Discharger initiate a TRE.

6.3.2.1.3.4. If the result of any accelerated toxicity test exceeds the chronic toxicity trigger, the Discharger shall cease accelerated monitoring and begin a TRE to investigate the causes of and identify corrective actions to reduce or eliminate effluent toxicity. Within 30 days of notification by the laboratory of any test result exceeding the chronic toxicity trigger during accelerated monitoring, the Discharger shall develop and implement a TRE action plan, which shall include at a minimum: a) specific actions the Discharger will take to investigate, identify, and correct the causes of toxicity, b) specific actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity, and c) a schedule for these actions. This TRE action plan and schedule are subject to approval and modification by the Executive Officer. A failure to conduct TRE-related toxicity tests or a TRE within an approved period may result in enforcement action. While in a

TRE, TRE-related toxicity testing conducted as part of the TRE investigation will not be subject to enforcement action.

6.3.2.1.3.5. Results of the initial failed test and any toxicity monitoring results subsequent to the failed test shall be reported as soon as reasonable to the Central Coast Water Board Executive Officer. The Executive Officer will determine whether it is appropriate to initiate enforcement action, require the Discharger to implement TRE requirements of this Order, or implement other measures.

6.3.2.2. Initial-Dilution Study

The Discharger shall submit to the Central Coast Water Board a study demonstrating the minimum probable initial dilution of the discharge at Discharge Point 001 with the submittal of the next Report of Waste Discharge, or sooner if available. In accordance with section III.C.4.e of the Ocean Plan, the study shall utilize standard dilution models and methods approved by the State Water Board, or the Discharger may propose alternative methods of dilution calculation to the Central Coast Water Board for verification of accuracy and applicability. Dilution estimates shall be based on current observed waste flow characteristics, current observed receiving water density structure, and the assumption that no currents of sufficient strength to influence the initial dilution process flow across the discharge structure.

6.3.2.3. Sea Foam Study

This provision requires the Discharger to investigate the causes of and identify corrective actions to reduce or eliminate the generation of unnatural concentrations of sea foam by the turbulent discharge of once-through cooling water. A sea foam study shall be conducted in phases spaced throughout the five-year period of the Order, as described below.

6.3.2.3.1. Sea Foam Study Phase I

In the first year following the Order’s effective date, the Discharger shall review existing literature and technical documents and report to the Central Coast Water Board on the potential impacts of discharge-driven sea foam generation on the beneficial uses of the receiving water. The report shall include a discussion of the potential for, and possible effects of, sea foam-related decreases in light transmission rate, increases in toxic pollutant and bacteria concentrations, and changes in color at the ocean surface. The report shall also review the feasibility of potential sea foam mitigation technologies. A Phase I sea foam report shall be submitted no later than one year from the Order’s effective date. The Central Coast Water Board will review the Discharger’s report and the previous 12 months of effluent and visual monitoring to determine, in consultation with the discharger, whether additional sea foam-specific monitoring and reporting is necessary. Such additional monitoring and reporting may include the collection of quantitative

data on the spatial and temporal variability sea foam coverage, along with the completion of a sea-foam-based toxicity identification evaluation plan.

6.3.2.3.2. Sea Foam Study Phase II

Following the Central Coast Water Board's review of the Phase I sea foam report, the Discharger shall conduct any newly required monitoring and report results of the monitoring to the Central Coast Water Board in a Phase II sea foam report. The Phase II sea foam report must contain the information required by the Central Coast Water Board as follow up to the Phase I report and must be submitted with, or prior to, the Report of Waste Discharge as part of the permit renewal application package

6.3.2.4. Bacteria and Dissolved Oxygen Study

This provision requires the Discharger to conduct a monitoring study to characterize dissolved oxygen and bacteria in the Facility's intake water, effluent, and receiving water. The intent of the characterization study is to provide data that will allow the Central Coast Water Board to determine if bacteria and dissolved oxygen in the effluent comply with applicable WQOs in the Basin Plan and Ocean Plan and, if not, if background receiving water is the source of these pollutants.

6.3.2.4.1. Within 180 days of the effective date of this permit, the Discharger shall develop and submit a sampling and analysis plan for Executive Officer review and approval. This sampling plan shall include at a minimum:

6.3.2.4.1.1. A proposal for sampling dissolved oxygen, total coliform bacteria, fecal coliform bacteria, and enterococcus at Monitoring Locations INF-001, EFF-001, INT-001N, and at least one background receiving water location. The background sample location shall be upstream of any Facility discharge and outside the influence of any Facility operation. The proposal shall include figures depicting the Facility and proposed sampling locations.

6.3.2.4.1.2. Proposed sampling frequency that represents background receiving water in upwelling, oceanic, and winter conditions.

6.3.2.4.1.3. Proposed sampling depths and procedures to represent conditions throughout the water column.

6.3.2.4.1.4. The proposal shall include:

6.3.2.4.1.4.1. Chain of custody procedures and documentation

6.3.2.4.1.4.2. Sample holding/preservation procedures

6.3.2.4.1.4.3. A description of approved analytical methods to be performed along with appropriate quality assurance and quality control (QA/QC).

6.3.2.4.1.4.4. A description of sample containers, preservatives, and holding times.

6.3.2.4.2. Beginning in the second year after the effective date of this Order, the Discharger shall implement the sampling plan.

6.3.2.4.3. Each year of the term of this Order, the Discharger shall submit a report with its annual Self-Monitoring Report (SMR) detailing the findings of the previous 12 months of sampling. The report shall include any exceedances of the applicable WQOs for dissolved oxygen and bacteria and an analysis of the potential causes of the exceedances.

6.3.3. Best Management Practices and Pollution Prevention

6.3.3.1. Pollutant Minimization Program

At the time of the adoption of this Order, no known evidence was available that would require the Discharger to immediately develop and conduct a pollutant minimization program (PMP). Should the Central Coast Water Board notify the Discharger in writing that a PMP is necessary, the Discharger shall follow the PMP guidelines listed in Section III.C.9 of the Ocean Plan to develop a PMP.

6.3.4. Construction, Operation, and Maintenance Specifications – Not Applicable

6.3.5. Special Provisions for Publicly Owned Treatment Works (POTWs) – Not Applicable

6.3.6. Other Special Provisions

6.3.6.1. Once-Through Cooling Water Requirements

Section 316, subsection (b) of the CWA and its implementing regulations require that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available (BTA) for minimizing adverse environmental impacts. (33 U.S.C. § 1326 subd. (b); see, also, 40 C.F.R. 125 Part J, §125.90 et seq. (existing facilities).) Section 316(b) is implemented through NPDES permits such as this one, issued pursuant to CWA section 402.

The State Water Board's OTC Policy, enacted in May 2010 and last amended in August 2023, establishes uniform technology-based standards to implement the requirements of CWA section 316 subsection (b) and reduce the harmful effects associated with cooling water intake structures on marine and estuarine life.

Pursuant to Senate Bill 846, Water Code section 13193.5 establishes a compliance date of October 31, 2030, for the Facility to comply with BTA requirements of the OTC Policy for Units 1 and 2. The Discharger is required to complete the tasks in Table 11 below to comply with the OTC Policy, as last amended in August 2023.

Table 11. Schedule of Compliance with OTC Policy for DCPP Units 1 and 2

Task	Compliance Date
Submit annual progress report on OTC Policy compliance actions for Units 1 and 2	Annually (submit with annual SMR)

Task	Compliance Date
Achieve full OTC Policy compliance with Units 1 and 2.	October 31, 2030
Submit final status report on OTC Policy compliance for Units 1 and 2	November 30, 2030

6.3.6.1.1. OTC Policy Immediate and Interim Requirements

To minimize impacts to aquatic resources to the extent possible while the Discharger remains in operation using once-through cooling, the Discharger shall implement the following actions:

6.3.6.1.1.1. At least six months prior to the expiration date of this Order, the Discharger shall complete and submit an updated impingement and entrainment study. The Discharger shall submit a proposed work plan to conduct the study within nine months of the effective date of this Order. The updated study shall include a minimum of one year of new data collection and must address potential impacts to all threatened, endangered, and other protected species in the vicinity of the intake structure.

6.3.6.1.1.2. Any unit that is not directly engaged in power generating activities or critical system maintenance on the effective date of this Order shall immediately cease intake flows unless it has been demonstrated to the State Water Board that a reduced minimum flow is necessary for operations.

6.3.6.1.1.3. The discharge of waste and/or intake of water shall not impact the function of state water quality protection areas, unless the impacts are mitigated to the satisfaction of the Central Coast Water Board and the State Water Board.

The Discharger shall continue to operate and properly maintain the existing intake technologies, which consists of bar racks and coarse-mesh traveling screens.

6.3.6.1.1.4. The Discharger shall immediately implement measures to mitigate interim impingement and entrainment impacts until full OTC Policy compliance is achieved. As per the OTC Policy, the Discharger may comply with this requirement through any of the following actions:

6.3.6.1.1.4.1. Demonstrating to the State Water Board’s satisfaction that the Discharger is compensating for the interim impingement and entrainment impacts through existing mitigation efforts, including any projects that were required by state or federal permits as of October 1, 2010,

6.3.6.1.1.4.2. Demonstrating to the State Water Board’s satisfaction that the interim impacts are compensated for by the Discharger by providing funding to the California Coastal Conservancy, which will work with the California Ocean Protection Council to fund an appropriate mitigation project, or

6.3.6.1.1.4.3. Developing and implementing a mitigation project for the Facility approved by the State Water Board that will compensate for the interim

impingement and entrainment impacts. Such a project must be overseen by an advisory panel of experts convened by the State Water Board.

6.3.6.1.2. Suspension of Final Compliance Date

Based on the need for continued operation of an existing power plant to maintain the reliability of the electric system, the OTC Policy specifies that a final compliance date may be suspended under the following circumstances:

6.3.6.1.2.1 Suspension of final compliance date for less than 90 days for existing power plants within CAISO jurisdiction

If the California Independent System Operator (CAISO) determines that continued operation of the Facility is necessary to maintain the reliability of the electric system in the short term, CAISO shall provide written notification to the State Water Board, the Central Coast Water Board, and the Statewide Advisory Committee on Cooling Water Intake Structures (SACCWIS). If the executive directors of the California Energy Commission (CEC) and California Public Utilities Commission (CPUC) do not object in writing within 10 days to CAISO's written notification, the notification provided pursuant to this paragraph will suspend the final compliance date for the shorter of 90 days or the time CAISO determines necessary to maintain reliability. In the event either CEC or CPUC objects as provided in this paragraph, then the State Water Board shall hold a hearing as expeditiously as possible to determine whether to suspend the compliance date in accordance with OTC Policy paragraph 2.B(2)(d).

6.3.6.1.2.2 Suspension of final compliance date for longer than 90 days, or consecutive less-than-90-day suspensions, for existing power plants within CAISO jurisdiction

If CAISO determines that continued operation of the Facility is necessary to maintain the reliability of the electric system, CAISO shall provide written notification to the State Water Board, the Central Coast Water Board, and the SACCWIS. If the executive directors of the CEC and CPUC do not object in writing within 10 days to CAISO's determination, the notification provided pursuant to this paragraph will suspend the final compliance date for 90 days. During the 90-day time suspension or within 90 days of receiving a written notification from CAISO, the State Water Board shall conduct a hearing in accordance with OTC Policy paragraph 2.B(2)(d) to determine whether to suspend the final compliance date for more than the original 90 days, pending, if necessary, full evaluation of amendments to final compliance dates contained in the OTC Policy.

6.3.6.1.3. Additional CWA 316(b) Rule Requirements

In addition to the foregoing, the Discharger shall comply with CWA section 316(b) as follows:

6.3.6.1.3.1. Nothing in this permit authorizes a take for the purposes of a facility's compliance with the federal Endangered Species Act.

6.3.6.1.3.2 The Discharger must either conduct visual inspections or employ remote monitoring devices during the period the cooling water intake structure is in operation. The Discharger must conduct such inspections at least weekly to ensure that any technologies operated to comply with this rule are maintained and operated to function as designed, including those installed to protect federally listed threatened or endangered species or designated critical habitat.

6.3.6.1.3.3 The Discharger's annual report must include an annual certification statement containing the following information:

6.3.6.1.3.3.1 If the information contained in the previous year's annual certification is still pertinent, the Discharger may simply state as such in a letter to the Central Coast Water Board, and the letter, along with any other applicable data submission requirements, shall constitute the annual certification.

6.3.6.1.3.3.2 If the Discharger has substantially modified operation of any unit at the Facility that impacts cooling water withdrawals or operation of the cooling water intake structures, the Discharger must provide a summary of those changes in the report. In addition, the Discharger must submit revisions to the information required at 40 CFR section122.21 subd. (r) in the Discharger's report of discharge due before expiration of this Order.

6.3.6.2. Discharges of Stormwater

This Order does not authorize stormwater discharges. For stormwater discharges, the Discharger shall maintain coverage under and meet the requirements of the Industrial General Permit.

6.3.6.3. Biosolids Management

Biosolids are excluded from regulation under this permit per 40 CFR section 503.6 subd. (d). Biosolids generated onsite are hauled offsite to an approved disposal facility. This permit prohibits the discharges of sewage sludge and/or biosolids to waters of the United States.

6.3.6.4. Climate Change Response Hazards and Vulnerabilities Plan

Three years from the effective date of this Order, the Discharger shall submit a climate change response hazards and vulnerabilities plan describing the Discharger's long-term approach to identify and address climate change hazards and vulnerabilities at the Facility, including all associated infrastructure (e.g., treatment facilities, conveyances to discharge points, discharge facilities). The Discharger may use existing data and evaluations for compliance with this requirement. The plan shall, at a minimum:

6.3.6.4.1. Identify current approaches being implemented at the Facility to reduce greenhouse gas emissions and assess potential approaches to be

implemented at the Facility to reduce greenhouse gas emissions in the future based on effectiveness in reducing greenhouse gas emissions and feasibility of implementation.

6.3.6.4.2. Identify and prioritize climate change hazards at the Facility and assess Facility vulnerability to climate change hazards that could cause reduction, loss, or failure of treatment processes and/or critical structures at the Facility. For the anticipated life of the Facility, accounting for forecasted climatic changes, the plan shall, at a minimum, include analysis of the following:

6.3.6.4.2.1. The range of potential sea-level rise flooding scenarios at the Facility.

6.3.6.4.2.2. The range of potential temperature scenarios and the range of potential extreme low and extreme high influent flow and loading scenarios.

6.3.6.4.3. Prioritize climate change hazards and vulnerabilities at the Facility and identify triggers that will initiate responses at the Facility.

6.3.6.2.4. Identify and prioritize potential responses to climate change hazard triggers, accounting for a full suite of potential adaptation responses. The Discharger shall prioritize options that achieve long-term Facility safety and operation and minimize resource impacts.

6.3.6.4.5. Identify the next steps the Discharger will implement to ensure that the Facility is safe from and resilient to climate change hazards, and share findings with appropriate agencies in a timely manner.

6.3.7. Compliance Schedules

6.3.7.1 The compliance schedule and the interim limits in section 4.1.5 of this Order are authorized under section 1.e. of the State Water Board's Resolution 2008-0025, *Policy for Compliance Schedules in National Pollutant Discharge Elimination System Permits*.

6.3.7.2. The Discharger shall notify the Central Coast Water Board in a written compliance report, no later than 14 days following each interim milestone date, of its compliance or noncompliance with the interim requirements.

6.3.7.3. To monitor compliance with the interim and final effluent limitations for tributyltin prescribed in Tables 7, 8 and 9, the Discharger shall monitor the effluent for the pollutants at the frequencies required in Table E-11 for tributyltin. Each result shall be reported in quarterly reports to track progress in achieving compliance with the final effluent limitations.

6.3.7.4. The Permittee may be subject to enforcement action for failure to complete the tasks by the milestone dates specified in Table 12.

Table 12. Tributyltin Compliance Schedule and Milestone Dates

Action	Deadline
1. Develop tributyltin source identification plan ("Study Plan") for approval by Executive Officer, including:	180 days after the Order effective date.

Action	Deadline
• Methods for determining the background concentration of tributyltin, away from any influence of Facility processes and activities • Methods for identifying sources of tributyltin that result in the elevation of influent and effluent tributyltin concentrations above the background concentration • Locations of all necessary sampling locations, including but not limited to, effluent, influent, internal, stormwater, and receiving water. Influent sampling must include Monitoring Location INF-001 and receiving water sampling must include a background location positioned away from any influence of Facility processes and activities. • Sampling plan, including a minimum of six months of monthly sampling • Standard operating procedures	
2. Implement the Study Plan.	1.5 years after the Order effective date.
3. Report the results of the Study Plan to the Central Coast Water Board, including: • The background concentration of tributyltin, away from any influence of Facility processes and activities • Comparison of the background tributyltin concentration with concurrent influent and effluent concentrations • Whether Facility processes and activities contribute to the elevation of influent and effluent tributyltin concentrations above the background concentration • If effluent tributyltin concentrations are above background concentrations: ○ Sources of tributyltin that contribute to the elevation of influent and effluent tributyltin concentrations above the background concentration	2.5 years after the Order effective date.
4. If the Study Plan results indicate that effluent tributyltin concentrations are above background concentrations, and the sources of elevated tributyltin are determined by the Central Coast Water Board to be within the Discharger's control, develop a corrective action plan (CAP) to reduce tributyltin concentrations in the influent or effluent such that compliance with final effluent limitations is met	3 years after the Order effective date.

Action	Deadline
5. If development of a CAP was required, implement the CAP and evaluate compliance with final effluent limitations.	180 days prior to Order expiration date.

7. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in section 4 of this Order will be determined as specified below:

7.1. General

Compliance with effluent limitations for reportable pollutants shall be determined using sample reporting protocols defined in the MRP and Attachment A of this Order. For purposes of reporting and administrative enforcement by the Central Coast Water Board and the State Water Board, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the reportable pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported ML.

7.2. Multiple Sample Data

When determining compliance with a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple samples analyses and the data set contains one or more reported determinations of “Detected, but Not Quantified” (“DNQ”, or “Not Detected” (ND)), the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

7.2.1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

7.2.2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

7.3. Six-Month Median

If the median of daily discharges over any 180-day period exceeds the six-month median effluent limitation for a given parameter, an alleged violation will be flagged, and the Discharger will be considered out of compliance for each day of that 180-day period for that parameter. The next assessment of compliance will occur after the next sample is taken. If only a single sample is taken during a given 180-day period and the analytical result for that sample exceeds the six-month median, the Discharger will be considered out of compliance for the 180-day period. For any

180-day period during which no sample is taken, no compliance determination can be made for the six-month median limitation.

7.4. 30-Day Average

If the arithmetic mean of daily discharges over any 30 consecutive day period exceeds the 30-day average effluent limitation, an alleged violation will be flagged, and the Discharger will be considered out of compliance for each day of that 30-day period for that parameter. The next assessment of compliance will occur after the next sample is taken. If only a single sample is taken during a given 30-day period and the analytical result for that sample exceeds the 30-day average effluent limitation, the Discharger will be considered out of compliance for the 30-day period. For any 30-day period during which no sample is taken, no compliance determination can be made for the 30-day average effluent limitation.

7.5. Average Monthly Effluent Limitation (AMEL)

If the average of daily discharges over a calendar month exceeds the AMEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of noncompliance in a 31-day month). The average of daily discharges over the calendar month that exceeds the AMEL for a parameter will be considered out of compliance for that month only. If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger will be considered out of compliance for that calendar month. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

7.6. Average Weekly Effluent Limitation (AWEL)

If the average of daily discharges over a calendar week exceeds the AWEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for each day of that week for that parameter, resulting in seven days of noncompliance. The average of daily discharges over the calendar week that exceeds the AWEL for a parameter will be considered out of compliance for that week only. If only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL, the Discharger will be considered out of compliance for that calendar week. For any one calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week.

7.7. Maximum Daily Effluent Limitation (MDEL)

If a daily discharge exceeds the MDEL for a given parameter, an alleged violation will be flagged, and the Discharger will be considered out of compliance for that parameter for that one day only within the reporting period. For any one day during which no sample is taken, no compliance determination can be made for that day**.**

7.8. Instantaneous Maximum Effluent Limitation

The instantaneous maximum effluent concentration limitation shall apply to grab sample determinations. If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, an alleged violation will be flagged, and the Discharger will be considered out of compliance for that parameter for that single sample. Noncompliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of noncompliance with the instantaneous maximum effluent limitation).

7.9. Instantaneous Minimum Effluent Limitation

The instantaneous minimum effluent concentration limitation shall apply to grab sample determinations. If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, an alleged violation will be flagged, and the Discharger will be considered out of compliance for that parameter for that single sample. Noncompliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of noncompliance with the instantaneous minimum effluent limitation).

ATTACHMENT A – DEFINITIONS

Acute Toxicity (not applicable to test of significant toxicity hypothesis testing)

1. Acute Toxicity (TUa)
   Expressed in Acute Toxic Units (TUa)

$$TUa = \frac{100}{\text{96-hr LC 50\%}}$$

2. Lethal Concentration 50% (LC 50)

   LC 50 (percent waste giving 50% survival of test organisms) shall be determined by static or continuous flow bioassay techniques using standard marine test species as specified in the State Water Resources Control Board's (State Water Board's) *Water Quality Control Plan for Ocean Waters of California* (Ocean Plan) Appendix III. If specific identifiable substances in wastewater can be demonstrated by the Discharger as being rapidly rendered harmless upon discharge to the marine environment, but not as a result of dilution, the LC 50 may be determined after the test samples are adjusted to remove the influence of those substances.

   When it is not possible to measure the 96-hour LC 50 due to greater than 50 percent survival of the test species in 100 percent waste, the toxicity concentration shall be calculated by the expression:

$$TUa = \frac{\log (100 - S)}{1.7}$$

   where:

   S = percentage survival in 100% waste. If S > 99, TUa shall be reported as zero.

Areas of Special Biological Significance (ASBS)
Those areas designated by the State Water Board as ocean areas requiring protection of species or biological communities to the extent that alteration of natural water quality is undesirable. All ASBS are also classified as a subset of State Water Quality Protection Areas (SWQPA).

Average Monthly Effluent Limitation (AMEL)
The highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Effluent Limitation (AWEL)
The highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Chlordane
Shall mean the sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordene-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

Chronic Toxicity (not applicable to test of significant toxicity hypothesis testing)
This parameter shall be used to measure the acceptability of waters for supporting a healthy marine biota until improved methods are developed to evaluate biological response.

1. Chronic Toxicity (TUc)
   Expressed as Toxic Units Chronic (TUc)

$$TUc = \frac{100}{NOEL}$$

2. No Observed Effect Level (NOEL)

   The NOEL is expressed as the maximum percent effluent or receiving water that causes no observable effect on a test organism, as determined by the result of a critical life stage toxicity test listed in Ocean Plan Appendix II.

Daily Discharge
Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit) for a pollutant with limitations expressed in units of mass or (2) the unweighted arithmetic mean measurement of the pollutant over the day for a pollutant with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if one day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

DDT (dichlorodiphenyltrichloroethane)
Shall mean the sum of 4,4’DDT, 2,4’DDT, 4,4’DDE, 2,4’DDE, 4,4’DDD, and 2,4’DDD.

Degradation
Degradation shall be determined by comparison of the waste field and reference site(s) for characteristic species diversity, population density, contamination, growth anomalies, debility, or supplanting of normal species by undesirable plant and animal species. Degradation occurs if there are significant differences in any of three major biotic groups, namely, demersal fish, benthic invertebrates, or attached algae. Other

groups may be evaluated where benthic species are not affected or are not the only ones affected.

Detected, but Not Quantified (DNQ)
Sample results that are less than the reported minimum level, but greater than or equal to the laboratory's method detection limit (MDL). Sample results reported as DNQ are estimated concentrations.

Dichlorobenzenes
Shall mean the sum of 1,2- and 1,3-dichlorobenzene.

Downstream Ocean Waters
Waters downstream with respect to ocean currents.

Dredged Material
Any material excavated or dredged from the navigable waters of the United States, including material otherwise referred to as "spoil."

Enclosed Bays
Indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. This definition includes but is not limited to: Humboldt Bay, Bodega Harbor, Tomales Bay, Drakes Estero, San Francisco Bay, Morro Bay, Los Angeles Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay.

Endosulfan
The sum of endosulfan-alpha and -beta and endosulfan sulfate.

Estuaries and Coastal Lagoons
Waters at the mouths of streams that serve as mixing zones for fresh and ocean waters during a major portion of the year. Mouths of streams that are temporarily separated from the ocean by sandbars shall be considered as estuaries. Estuarine waters will generally be considered to extend from a bay or the open ocean to the upstream limit of tidal action but may be considered to extend seaward if significant mixing of fresh and salt water occurs in the open coastal waters. The waters described by this definition include but are not limited to the Sacramento-San Joaquin Delta as defined by Section 12220 of the California Water Code, Suisun Bay, Carquinez Strait downstream to Carquinez Bridge, and appropriate areas of the Smith, Klamath, Mad, Eel, Noyo, and Russian Rivers.

Halomethanes
The sum of bromoform, bromomethane (methyl bromide) and chloromethane (methyl chloride).

HCH (hexachlorocyclohexane)
The sum of the alpha, beta, gamma (lindane) and delta isomers of hexachlorocyclohexane.

Initial Dilution
The process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge.

For a submerged buoyant discharge, characteristic of most municipal and industrial wastes that are released from the submarine outfalls, the momentum of the discharge and its initial buoyancy act together to produce turbulent mixing. Initial dilution in this case is completed when the diluting wastewater ceases to rise in the water column and first begins to spread horizontally.

For shallow water submerged discharges, surface discharges, and non-buoyant discharges, characteristic of cooling water wastes and some individual discharges, turbulent mixing results primarily from the momentum of discharge. Initial dilution, in these cases, is considered to be completed when the momentum-induced velocity of the discharge ceases to produce significant mixing of the waste or the diluting plume reaches a fixed distance from the discharge to be specified by the Central Coast Water Board, whichever results in the lower estimate for initial dilution.

Instantaneous Maximum Effluent Limitation
The highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

Instantaneous Minimum Effluent Limitation
The lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation.

“In-stream” Waste Concentration (IWC)
The concentration of a toxicant of effluent in the receiving water expressed as percent after mixing (the inverse of the dilution factor). A discharge of 100% effluent will be considered the IWC whenever mixing zones or dilution credits are not authorized by the applicable Water Board.

Kelp Beds
For purposes of the bacteriological standards of the Ocean Plan, are significant aggregations of marine algae of the genera Macrocystis and Nereocystis. Kelp beds include the total foliage canopy of Macrocystis and Nereocystis plants throughout the water column.

The “Initial Dilution Zone” of wastewater outfalls is excluded from designation as kelp beds for the purposes of bacterial standards. Adventitious assemblages of kelp plants on waste discharge structures (e.g., outfall pipes and diffusers) do not constitute kelp beds for purposes of bacterial standards.

Mariculture
The culture of plants and animals in marine waters independent of any pollution source.

Material
(a) In common usage: (1) the substance or substances of which a thing is made or composed (2) substantial; (b) For purposes of the Ocean Plan relating to waste disposal, dredging and the disposal of dredged material and fill, “material” means matter

of any kind or description which is subject to regulation as waste, or any material dredged from the navigable waters of the United States. See also, “dredged material”.

Maximum Daily Effluent Limitation (MDEL)
The highest allowable daily discharge of a pollutant.

Metal Cleaning Waste

The term metal cleaning waste means any wastewater resulting from cleaning—with or without chemical cleaning compounds—any metal process equipment including, but not limited to, boiler tube cleaning, boiler fireside cleaning, and air preheater cleaning.

Method Detection Limit (MDL)
The minimum concentration of a substance that can be reported with 99 percent confidence that the measured concentration is distinguishable from method blank results, as defined in 40 CFR part 136, Appendix B.

Minimum Level (ML)
The concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed. See also “reported minimum level”.

Natural Light
Reduction of natural light may be determined by the Central Coast Water Board by measurement of light transmissivity or total irradiance, or both, according to the monitoring needs of the Central Coast Water Board.

Non-Chlorinated Phenolic Compounds

Non-chlorinated phenolic compounds shall mean the sum of phenol, 2,4-dimethylphenol, 2-nitrophenol, 4-nitrophenol, 2,4-dinitrophenol, and 2-methyl-4,6-dinitrophenol.

Not Detected (ND)
Those sample results less than the laboratory’s MDL.

Ocean Waters
The territorial marine waters of the state as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. If a discharge outside the territorial waters of the state could affect the quality of the waters of the state, the discharge may be regulated to ensure no violation of the Ocean Plan will occur in ocean waters.

PAHs (polynuclear aromatic hydrocarbons)
The sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4 benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene and pyrene.

PCBs (polychlorinated biphenyls)
The sum of chlorinated biphenyls whose analytical characteristics resemble those of

Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254 and Aroclor-1260.

Pollutant Minimization Program (PMP)
PMP means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP shall be to reduce all potential sources of Ocean Plan Table 3 pollutants through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Central Coast Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a pollution prevention plan, if required pursuant to Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

Reported Minimum Level
The reported ML (also known as the reporting level or RL) is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order, including an additional factor if applicable as discussed herein. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the California Regional Water Quality Control Board, Central Coast Region (Central Coast Water Board) either from Appendix II of the Ocean Plan in accordance with section III.C.5.a. of the Ocean Plan or established in accordance with section III.C.5.b. of the Ocean Plan. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the reported ML.

Shellfish
Organisms identified by the California Department of Health Services as shellfish for public health purposes (i.e., mussels, clams, and oysters).

Significant Difference
Defined as a statistically significant difference in the means of two distributions of sampling results at the 95 percent confidence level.

Six-Month Median Effluent Limitation
The highest allowable moving median of all daily discharges for any 180-day period.

State Water Quality Protection Areas (SWQPAs)
Non-terrestrial marine or estuarine areas designated to protect marine species or biological communities from an undesirable alteration in natural water quality. All ASBS that were previously designated by the State Water Board in Resolutions 74-28, 74-32,

and 75-61 are now also classified as a subset of SWQPA and require special protections afforded by the Ocean Plan.

TCDD (2,3,7,8-tetrachlorodibenzo-p-dioxin) Equivalents
The sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown in the table below.

Isomer Group	Toxicity Equivalence Factor
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8 tetra CDF	0.1
1,2,3,7,8 penta CDF	0.05
2,3,4,7,8 penta CDF	0.5
2,3,7,8 hexa CDFs	0.1
2,3,7,8 hepta CDFs	0.01
octa CDF	0.001

Toxicity Identification Evaluation (TIE)
A set of procedures to characterize, identify, and confirm the cause of acute and chronic toxicity effects. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.

Toxicity Reduction Evaluation (TRE)
A study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A toxicity identification evaluation (TIE) may be required as part of the TRE, if appropriate.

Trash

All improperly discarded solid material from any production, manufacturing, or processing operations, including, but not limited to, products, product packaging, or containers constructed of plastic, steel, aluminum, glass, paper, or other synthetic or natural materials.

Waste
As used in the Ocean Plan, waste includes a Discharger’s total discharge, of whatever origin, i.e., gross, not net, discharge.

Water Recycling
The treatment of wastewater to render it suitable for reuse, the transportation of treated

wastewater to the place of use, and the actual use of treated wastewater for a direct beneficial use or controlled use that would not otherwise occur.

ATTACHMENT B – MAP

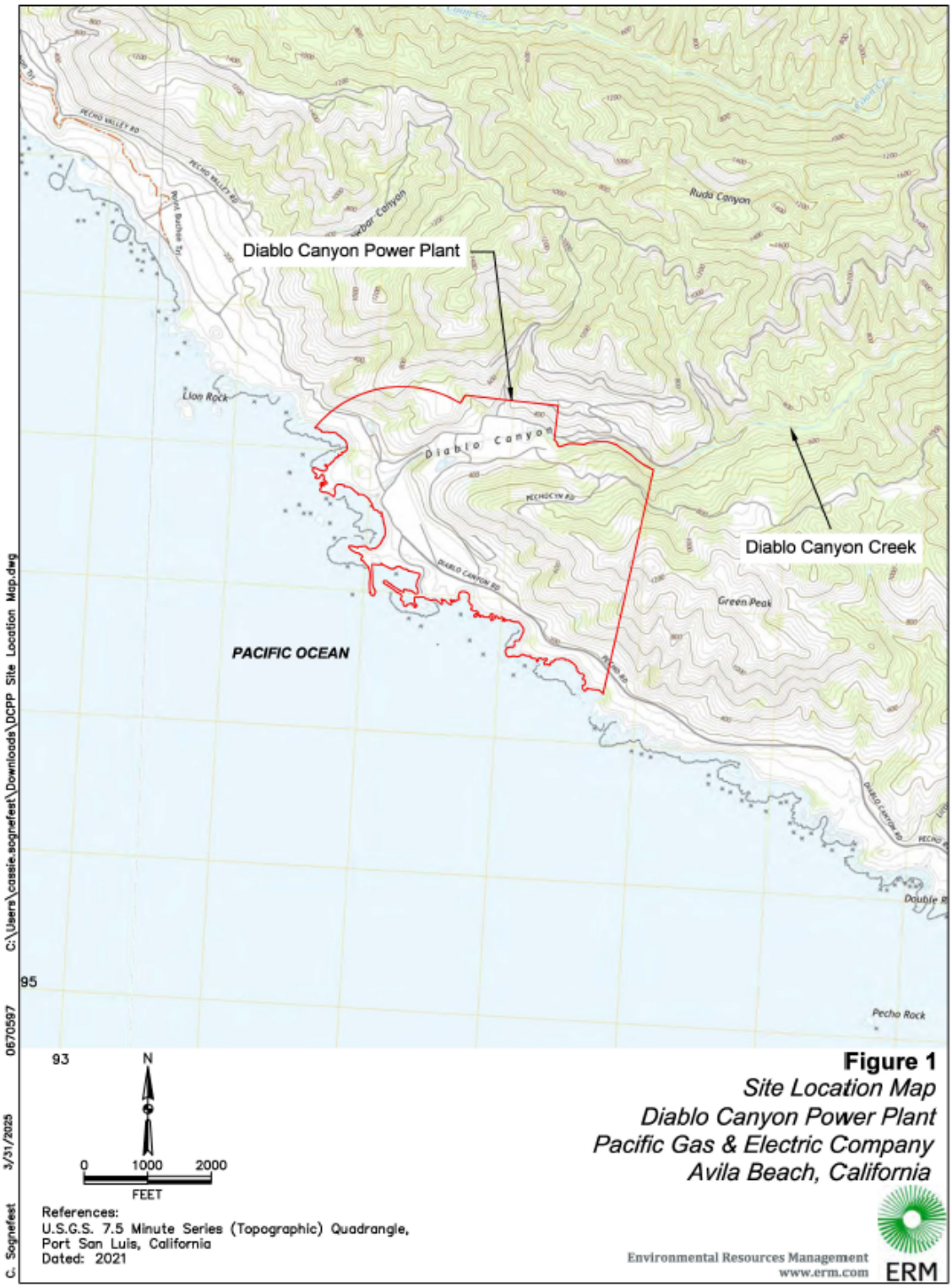


Figure B-1. Diablo Canyon Power Plant (DCPP) Site Location Map

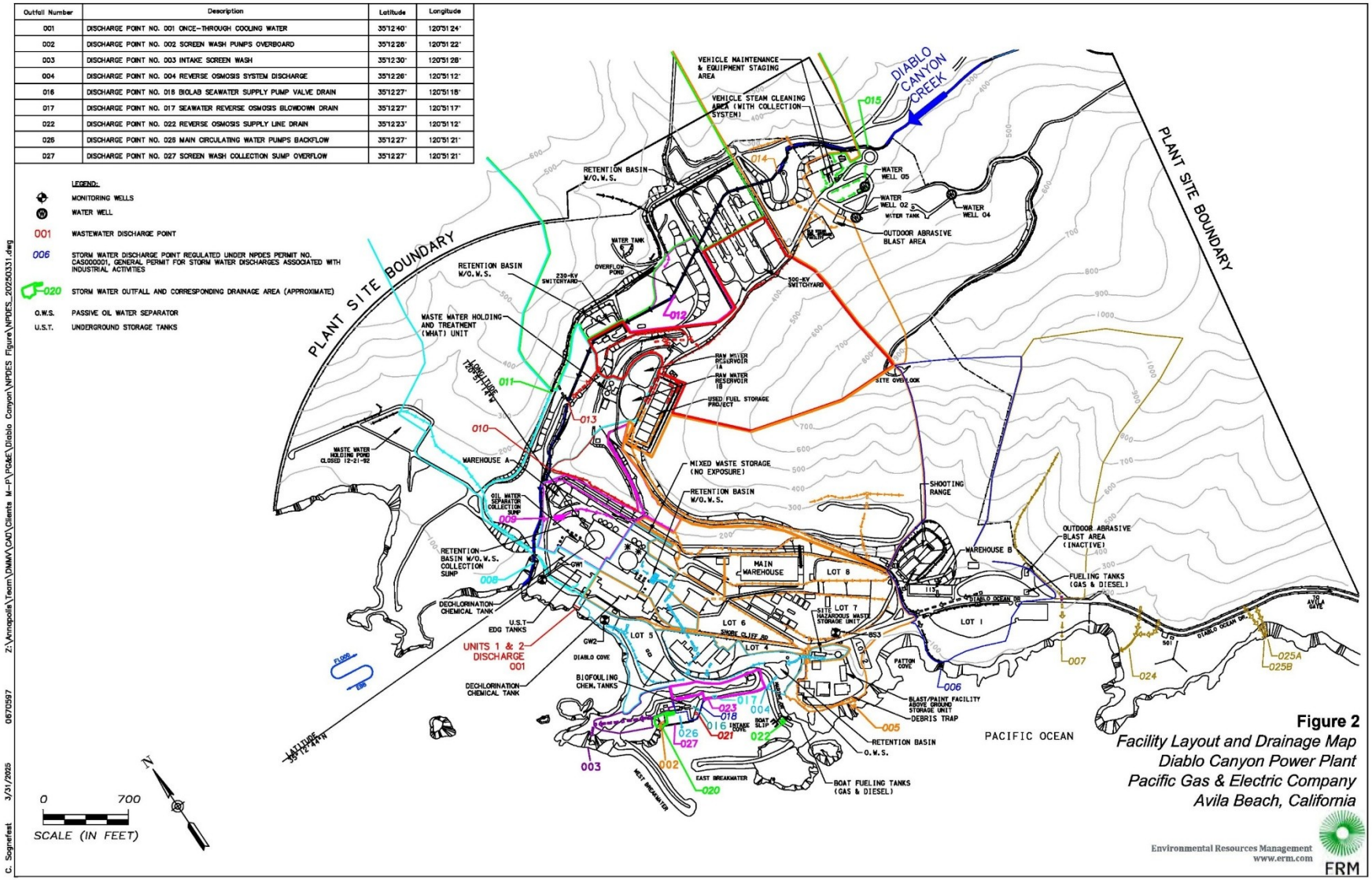


Figure B-2. DCPP Facility Layout and Discharge Point Location Map

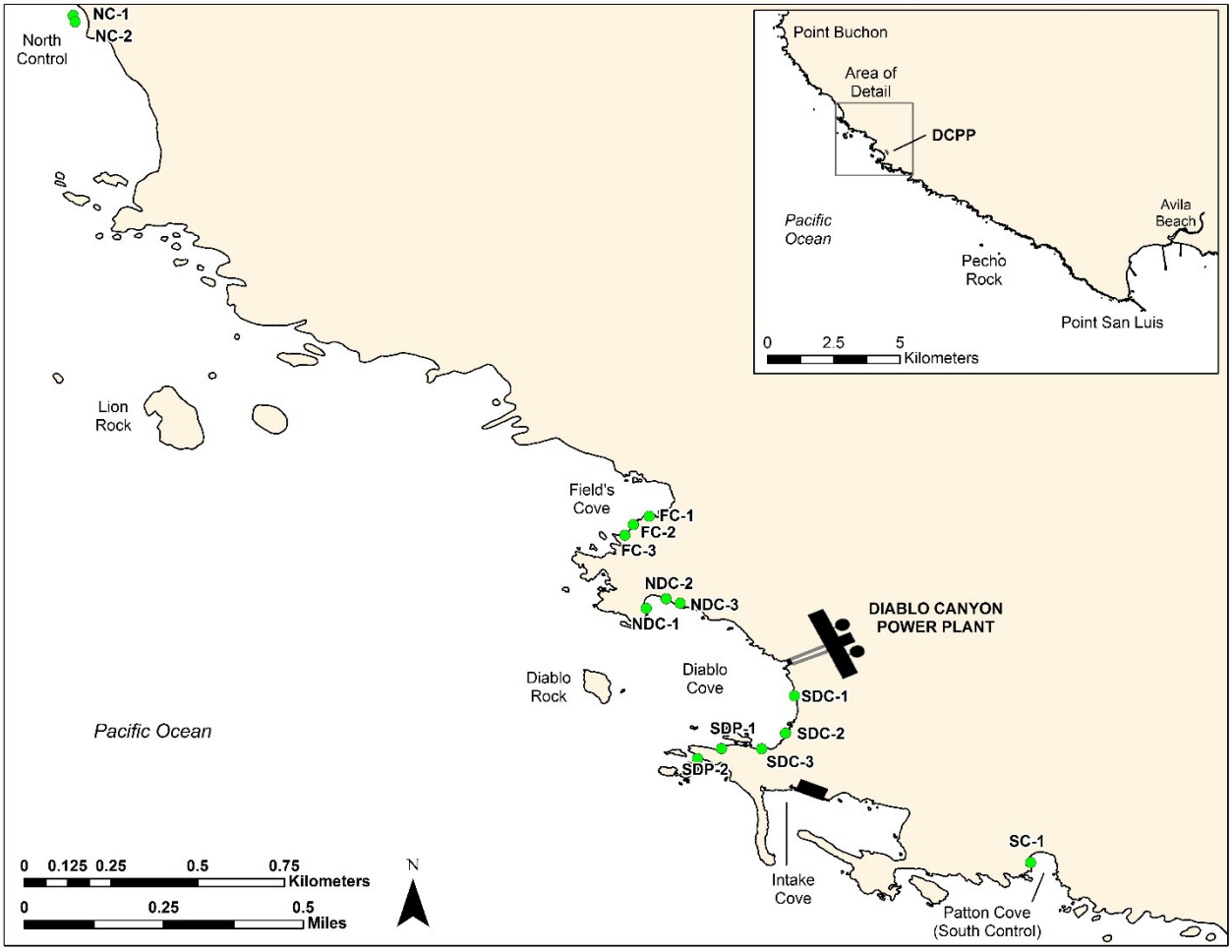


Figure B-3. DCPP Receiving Water Ecological Monitoring Program Intertidal Horizontal Band Transect Monitoring Locations

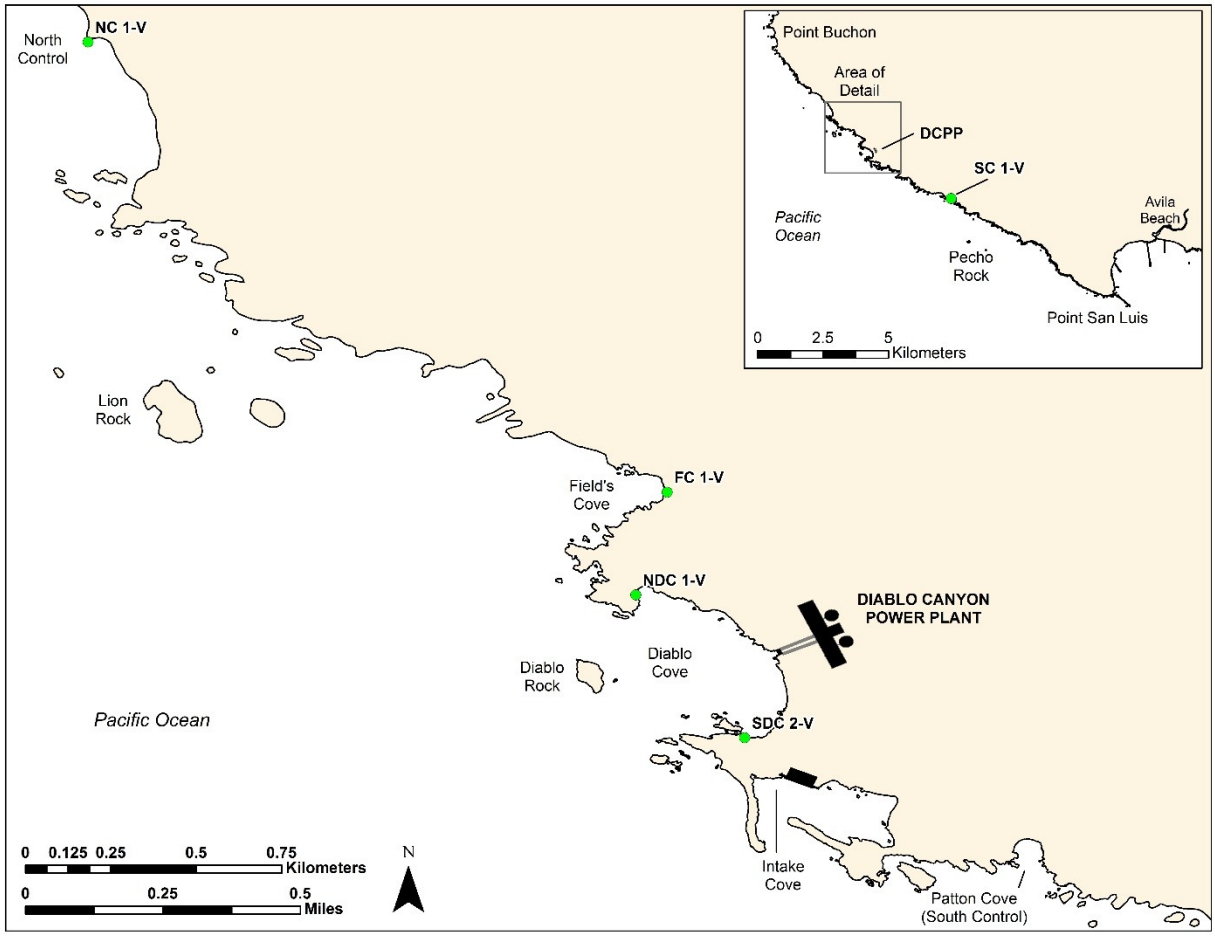


Figure B-4. DCPP Receiving Water Ecological Monitoring Program Intertidal Vertical Band Transect Monitoring Locations

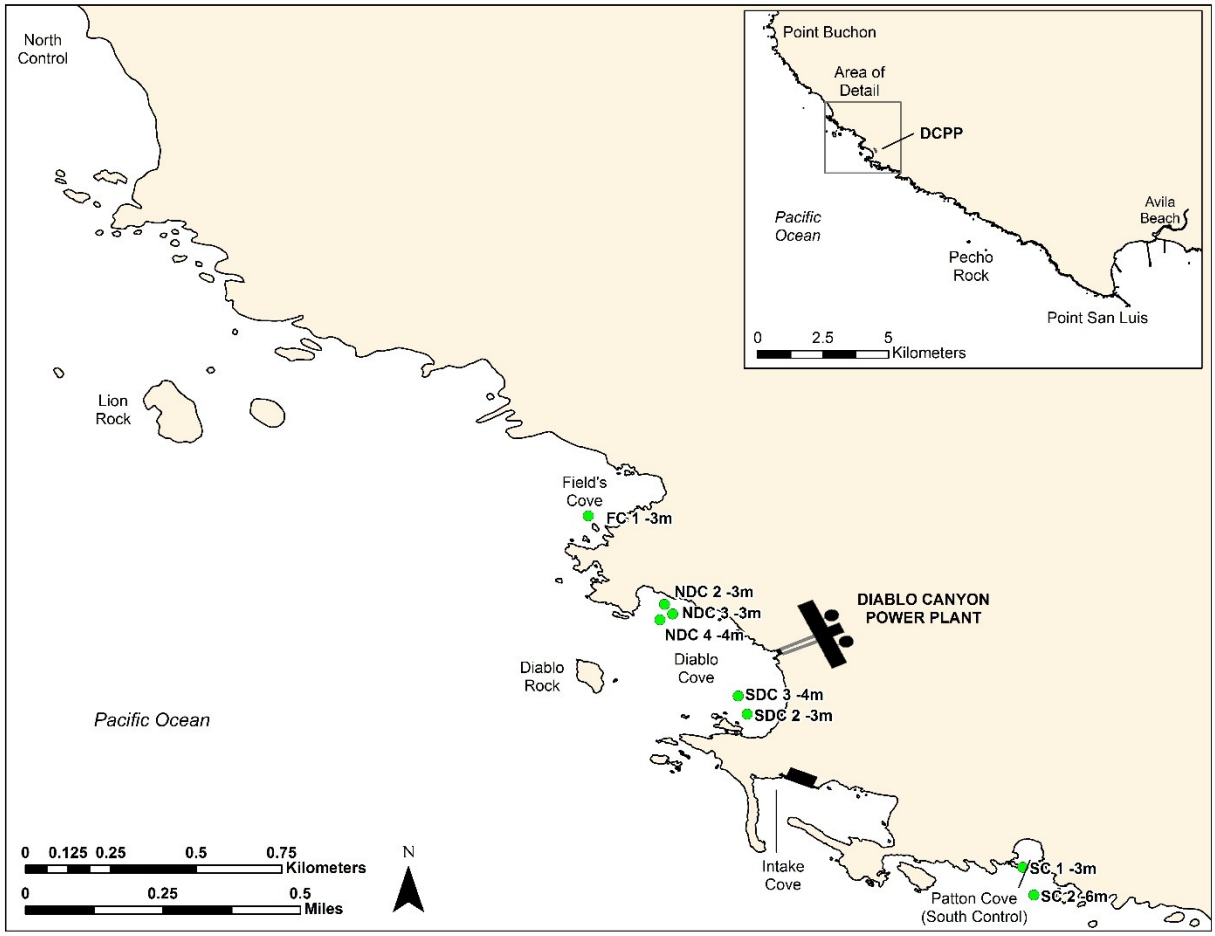


Figure B-5. DCPP Receiving Water Ecological Monitoring Program Subtidal Benthic Monitoring Locations

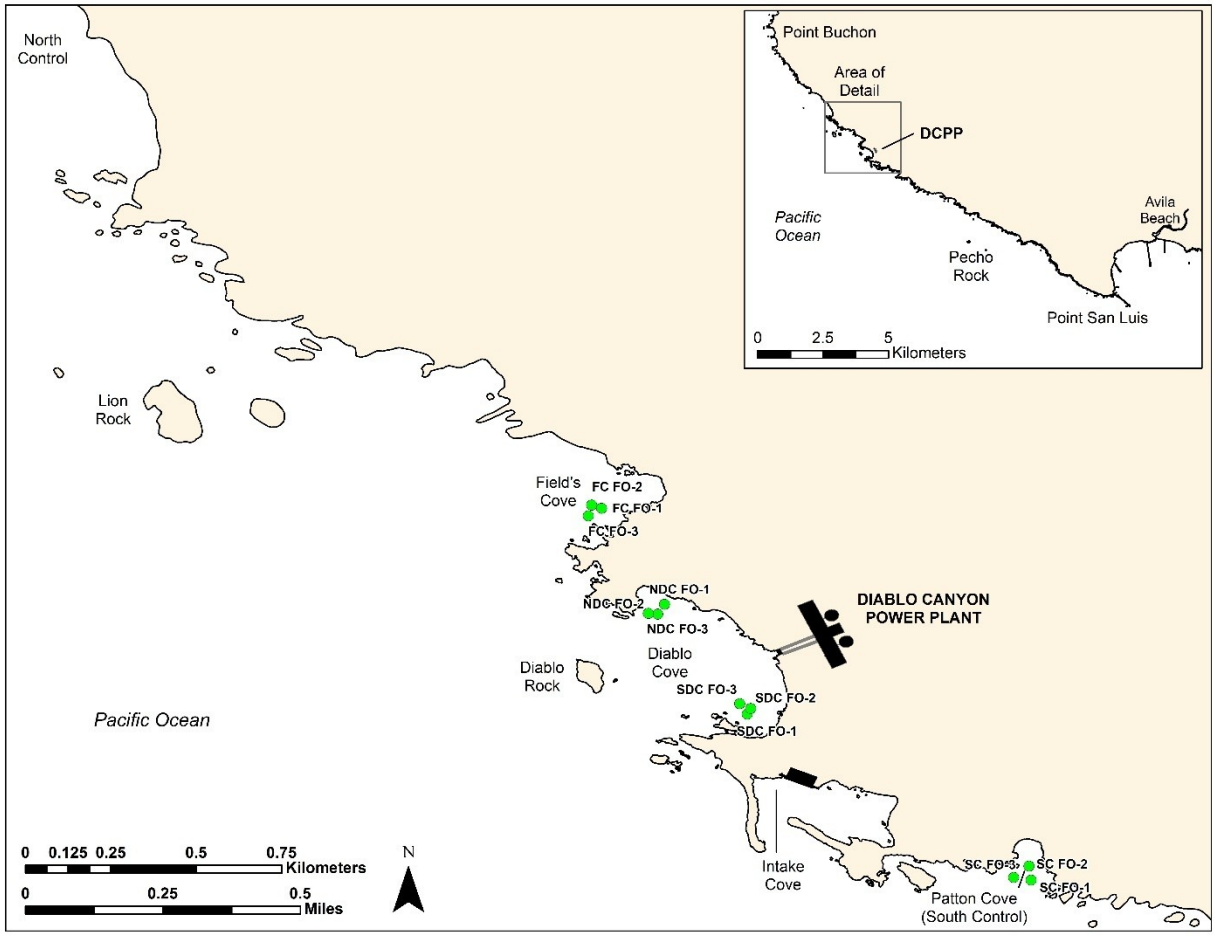


Figure B-6. DCPP Receiving Water Ecological Monitoring Program Subtidal Fish Observation Monitoring Locations

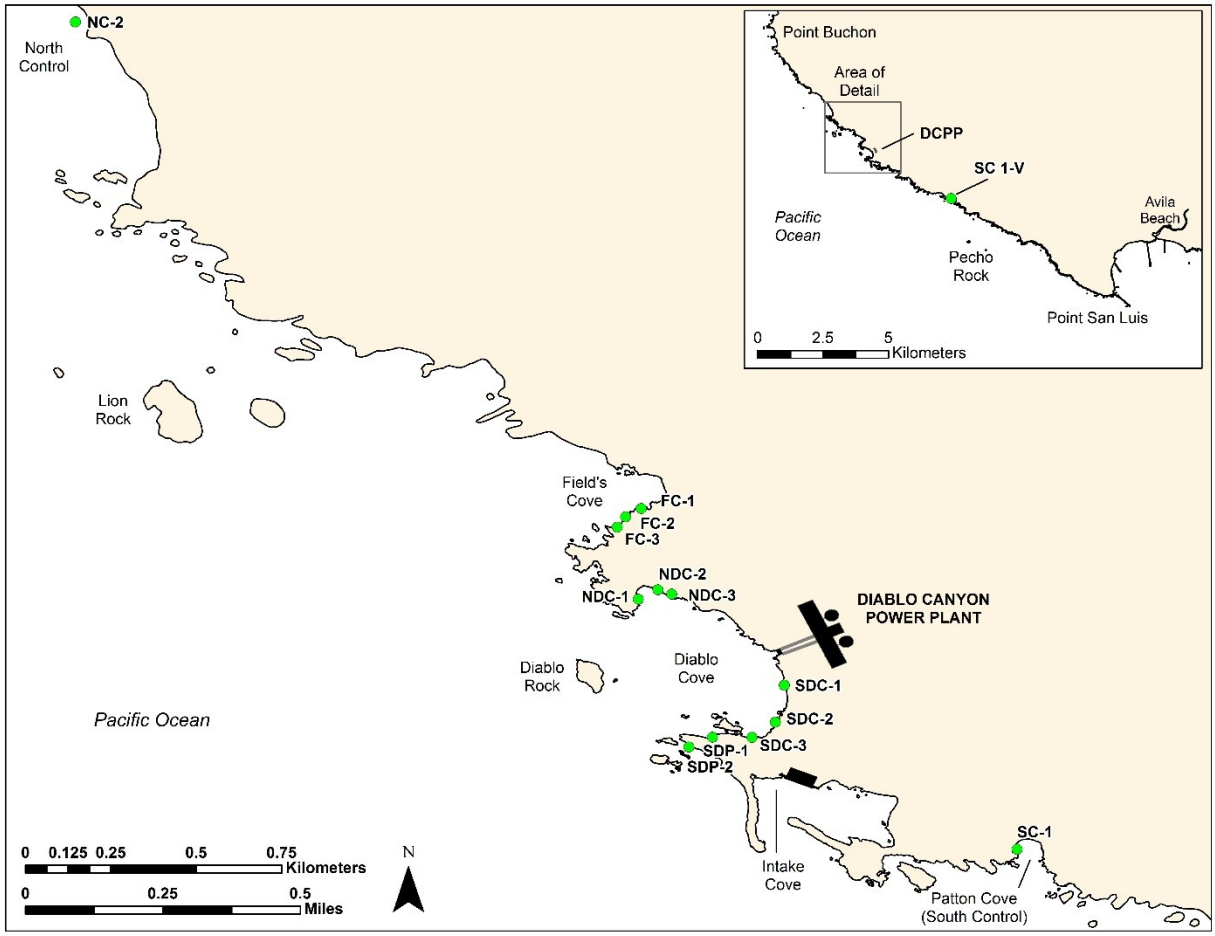


Figure B-7. DCPP Receiving Water Ecological Monitoring Program Intertidal Temperature Monitoring Locations

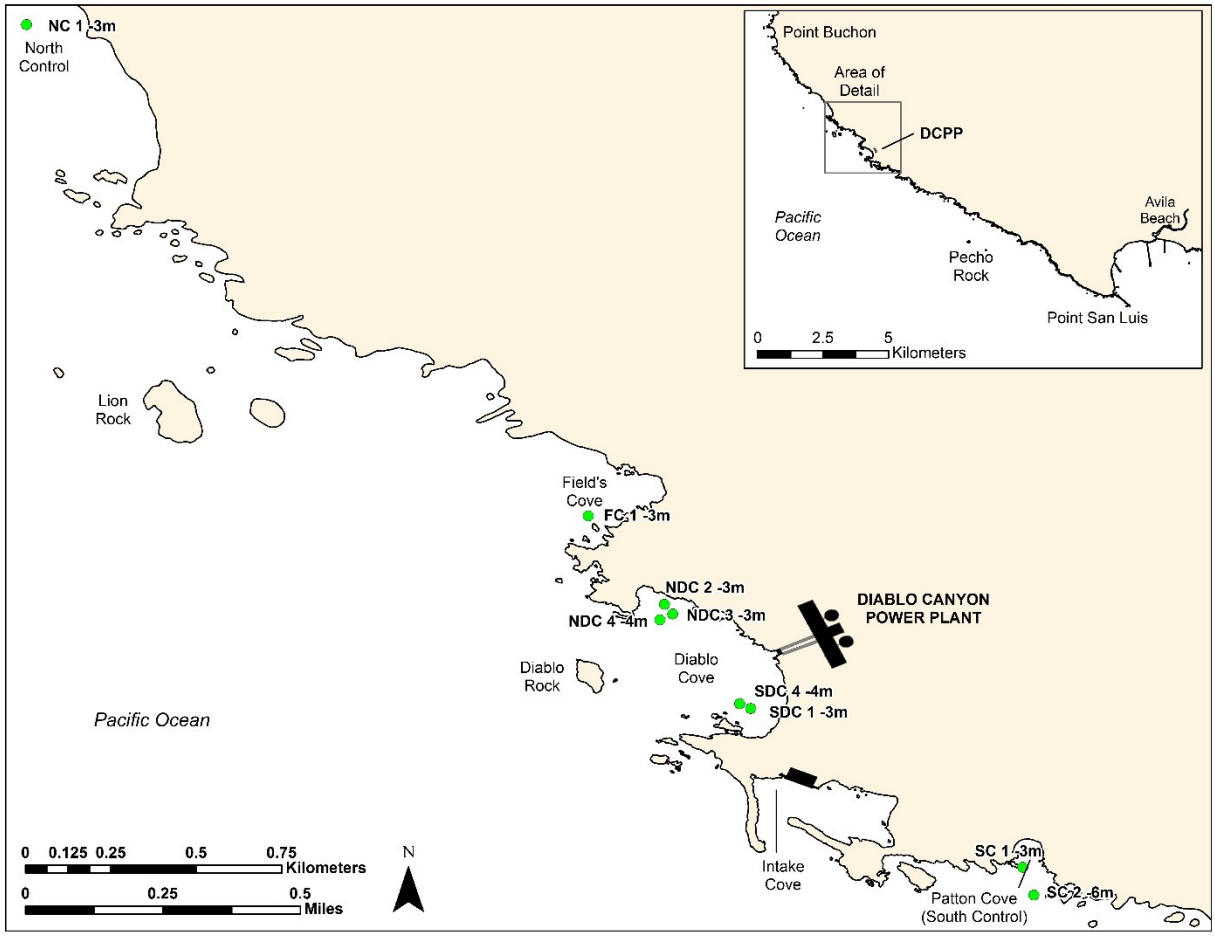
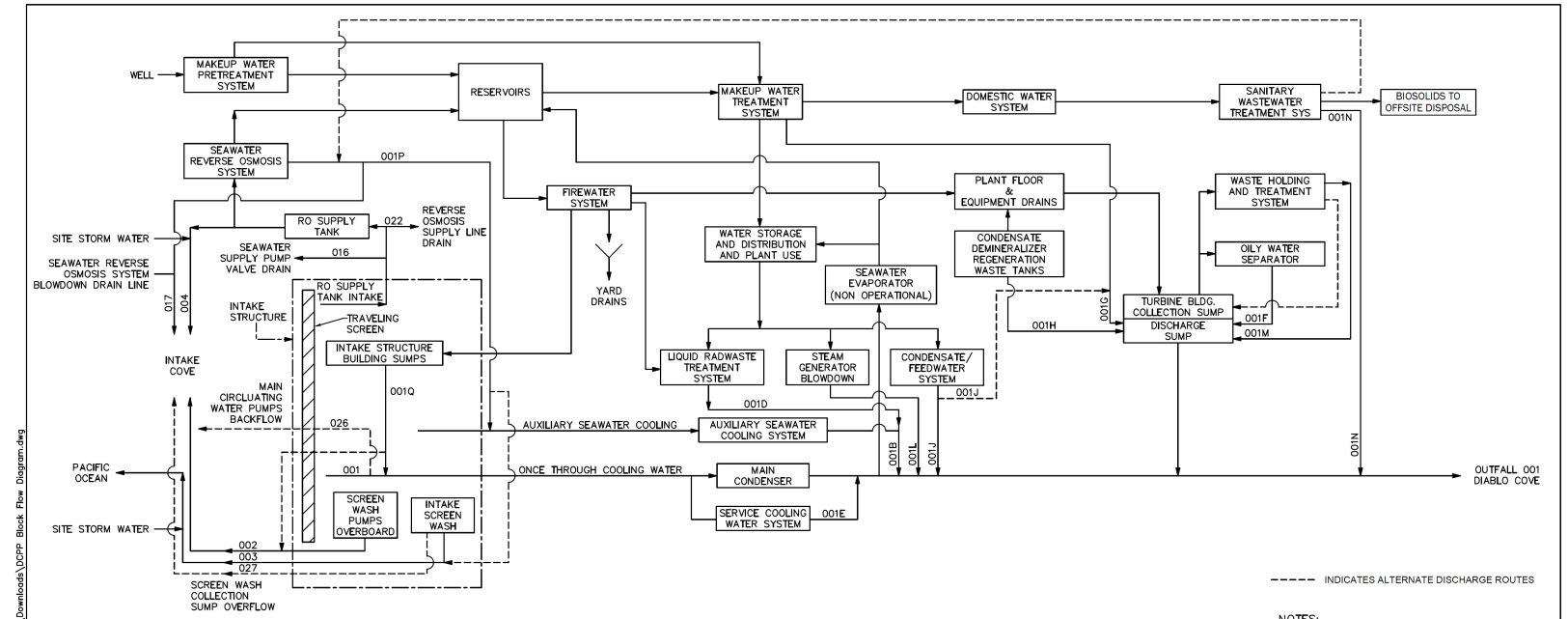


Figure B-8. DCPP Receiving Water Ecological Monitoring Program Subtidal Temperature Monitoring Locations

ATTACHMENT C – FLOW SCHEMATIC



DISCHARGE	DESCRIPTION	VOLUME (MGD)
001	Once Through Cooling	2.50E+03
001B	Auxiliary Seawater Cooling System	3.48E+01
001D	Liquid Radioactive Waste Treatment System (Batch)	5.50E−03
001E	Service Cooling Water (Batch)	6.00E−05
001F	Turbine Building Sump (Intermittent)	3.75E−02
001G	Makeup Water System Waste Effluent (Brine)	9.65E−02
001H	Condensate Demineralizer Regenerant (Intermittent)	3.35E−02

DISCHARGE	DESCRIPTION	VOLUME (MGD)
001J	Consensate Pumps Discharge Header Overboard (Intermittent)	5.65E−03
001L	Steam Generator Blowdown	1.65E−01
001M	Wastewater Holding & Treatment System (Intermittent)	1.25E−01
001N	Sanitary Wastewater Treatment System (Intermittent)	1.55E−02
001P	Seawater Reverse Osmosis System Blowdown	7.95E−01
001Q	Intake Structure Building Sumps Overboard	7.20E−02
002	Screen Wash Pumps Overboard (Intermittent)	3.28E−02

DISCHARGE	DESCRIPTION	VOLUME (MGD)
003	Intake Screen Wash (Intermittent)	2.64E+00
004	Reverse Osmosis System Discharge (Intermittent)	5.62E−01
016	Biolab Seawater Supply Pump Valve Drain (Batch)	2.00E−03
017	Seawater Reverse Osmosis Blowdown Drain (Batch)	4.00E−03
022	Reverse Osmosis Supply Line Drain (Batch)	1.65E−02
026	Main Circulating Water Pumps Backflow (Intermittent)	3.00E+00
027	Screen Wash Collection Sump Overflow (Intermittent)	7.22E+00

NOTES:

1. MGD = MILLION GALLONS PER DAY
2. VOLUMES PROVIDED ARE DAILY AVERAGES. ACTUAL FLOWS CAN BE VARIABLE.
3. STORM WATER DISCHARGE POINTS (005 THROUGH 015, 018, 020, 021, 023 THROUGH 025) REGULATED UNDER NPDES PERMIT NO. CAS000001, INDUSTRIAL STORMWATER GENERAL PERMIT, ARE NOT SHOWN ON DIAGRAM.

Figure 3
Wastewater Stream Schematic
Diablo Canyon Power Plant
Pacific Gas & Electric Company
Avila Beach, California

Environmental Resources Management
www.erm.com
ERM

C. Sognefest 10/17/2025 0670597 C:\Users\cosie.sognefest\Downloads\DCPP Block Flow Diagram.dwg

Figure C-1. Diablo Canyon Power Plant (DCPP) Process Flow Schematic

ATTACHMENT D – STANDARD PROVISIONS

1. Standard Provisions – Permit Compliance

1.1. Duty to Comply

1.1.1. The Discharger must comply with all of the terms, requirements, and conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; denial of a permit renewal application; or a combination thereof. (Title 40 of the Code of Federal Regulations [CFR] § 122.41(a); California Water Code [Water Code], §§ 13261, 13263, 13265, 13268, 13000, 13001, 13304, 13350, 13385.)

1.1.2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA 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. (40 CFR § 122.41(a)(1).)

1.2. Need to Halt or Reduce Activity Not a Defense

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. (40 CFR § 122.41(c).)

1.3. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 CFR § 122.41(d).)

1.4. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order. (40 CFR § 122.41(e).)

1.5. Property Rights

1.5.1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 CFR § 122.41(g).)

1.5.2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 CFR § 122.5(c).)

1.6. Inspection and Entry

The Discharger shall allow the California Regional Water Quality Control Board, Central Coast Region (Central Coast Water Board), State Water Resources Control Board (State Water Board), U.S. Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (33 U.S.C. § 1318(a)(4)(b); 40 CFR § 122.41(i); Wat. Code, §§ 13267, 13383):

1.6.1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (33 U.S.C. § 1318(a)(4)(b)(i); 40 CFR § 122.41(i)(1); Wat. Code, §§ 13267, 13383);

1.6.2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (33 U.S.C. § 1318(a)(4)(b)(ii); 40 CFR § 122.41(i)(2); Wat. Code, §§ 13267, 13383);

1.6.3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (33 U.S.C. § 1318(a)(4)(b)(ii); 40 CFR § 122.41(i)(3); Wat. Code, §§ 13267, 13383); and

1.6.4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (33 U.S.C. § 1318(a)(4)(b); 40 CFR § 122.41(i)(4); Wat. Code, §§ 13267, 13383.)

1.7. Bypass

1.7.1. Definitions

1.7.1.1. “Bypass” means the intentional diversion of waste streams from any portion of a treatment facility. (40 CFR § 122.41(m)(1)(i).)

1.7.1.2. “Severe property damage” means substantial physical damage to property, damage to the treatment facilities, which 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. (40 CFR § 122.41(m)(1)(ii).)

1.7.2. Bypass not exceeding limitations

The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to

assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance 1.7.3, 1.7.4, and 1.7.5 below. (40 CFR § 122.41(m)(2).)

1.7.3. Prohibition of bypass

Bypass is prohibited, and the Central Coast Water Board may take enforcement action against a Discharger for bypass, unless (40 CFR § 122.41(m)(4)(i)):

1.7.3.1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 CFR § 122.41(m)(4)(i)(A));

1.7.3.2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 CFR § 122.41(m)(4)(i)(B)); and

1.7.3.3. The Discharger submitted notice to the Central Coast Water Board as required under Standard Provisions – Permit Compliance 1.7.5 below. (40 CFR § 122.41(m)(4)(i)(C).)

1.7.4. Anticipated bypass

The Central Coast Water Board may approve an anticipated bypass, after considering its adverse effects, if the Central Coast Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance 1.7.3 above. (40 CFR § 122.41(m)(4)(ii).)

1.7.5. Notice

1.7.5.1. Anticipated bypass

If the Discharger knows in advance of the need for a bypass, it shall submit prior notice, if possible, at least 10 days before the date of the bypass. The notice shall be sent to the Central Coast Water Board. As of December 2023, all notices must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 below. Notices shall comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. (40 CFR § 122.41(m)(3)(i).)

1.7.5.2. Unanticipated bypass

The Discharger shall submit a notice of an unanticipated bypass as required in Standard Provisions - Reporting 5.5 below (24-hour notice). The notice shall be sent to the Central Coast Water Board. As of December 2023, all notices must be submitted electronically to the initial recipient defined in Standard Provisions

– Reporting 5.10 below. Notices shall comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. (40 CFR § 122.41(m)(3)(ii).)

1.8. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit 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 operation. (40 CFR § 122.41(n)(1).)

1.8.1. Effect of an upset

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance 1.8.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 CFR § 122.41(n)(2).)

1.8.2. Conditions necessary for a demonstration of upset

A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that
(40 CFR § 122.41(n)(3)):

1.8.2.1. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 CFR § 122.41(n)(3)(i));

1.8.2.2. The permitted facility was, at the time, being properly operated (40 CFR § 122.41(n)(3)(ii));

1.8.2.3. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting 5.5.2.2 below (24-hour notice) (40 CFR § 122.41(n)(3)(iii)); and

1.8.2.4. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance 1.3 above. (40 CFR § 122.41(n)(3)(iv).)

1.8.3. Burden of proof

In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof.
(40 CFR § 122.41(n)(4).)

2. Standard Provisions – Permit Action

2.1. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 CFR § 122.41(f).)

2.2. Duty to Reapply

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 permit. (40 CFR § 122.41(b).)

2.3. Transfers

This Order is not transferable to any person except after notice to the Central Coast Water Board. The Central Coast Water 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 CWA and the Water Code. (40 CFR §§ 122.41(l)(3), 122.61.)

3. Standard Provisions – Monitoring

3.1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 CFR § 122.41(j)(1).)

3.2. Monitoring must be conducted according to test procedures approved under 40 CFR part 136 for the analyses of pollutants unless another method is required under 40 CFR chapter 1, subchapter N. Monitoring must be conducted according to sufficiently sensitive test methods approved under 40 CFR part 136 for the analysis of pollutants or pollutant parameters or as required under 40 CFR chapter 1, subchapter N. For the purposes of this paragraph, a method is sufficiently sensitive when:

3.2.1. The method minimum level (ML) is at or below the level of the most stringent effluent limitation established in the permit for the measured pollutant or pollutant parameter, and either the method ML is at or below the level of the most stringent applicable water quality criterion for the measured pollutant or pollutant parameter or the method ML is above the applicable water quality criterion but the amount of the pollutant or pollutant parameter in the facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or

3.2.2. The method has the lowest ML of the analytical methods approved under 40 CFR part 136 or required under 40 CFR chapter 1, subchapter N for the measured pollutant or pollutant parameter.

In the case of pollutants or pollutant parameters for which there are no approved methods under 40 CFR part 136 or otherwise required under 40 CFR chapter 1, subchapter N, monitoring must be conducted according to a test procedure specified in this Order for such pollutants or pollutant parameters. (40 CFR §§ 122.21(e)(3),122.41(j)(4), 122.44(i)(1)(iv).)

4. Standard Provisions – Records

4.1. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Central Coast Water Board Executive Officer at any time. (40 CFR § 122.41(j)(2).)

4.2. Records of monitoring information shall include:

4.2.1. The date, exact place, and time of sampling or measurements (40 CFR § 122.41(j)(3)(i));

4.2.2. The individual(s) who performed the sampling or measurements (40 CFR § 122.41(j)(3)(ii));

4.2.3. The date(s) analyses were performed (40 CFR § 122.41(j)(3)(iii));

4.2.4. The individual(s) who performed the analyses (40 CFR § 122.41(j)(3)(iv));

4.2.5. The analytical techniques or methods used (40 CFR § 122.41(j)(3)(v)); and

4.2.6. The results of such analyses. (40 CFR § 122.41(j)(3)(vi).)

4.3. Claims of confidentiality for the following information will be denied (40 CFR § 122.7(b)):

4.3.1. The name and address of any permit applicant or Discharger (40 CFR § 122.7(b)(1)); and

4.3.2. Permit applications and attachments, permits and effluent data. (40 CFR § 122.7(b)(2).)

5. Standard Provisions – Reporting

5.1. Duty to Provide Information

The Discharger shall furnish to the Central Coast Water Board, State Water Board, or USEPA within a reasonable time, any information which the Central Coast Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Central Coast Water Board, State Water Board, or USEPA copies of records required to be kept by this Order.
(40 CFR § 122.41(h); Wat. Code, §§ 13267, 13383.)

5.2. Signatory and Certification Requirements

5.2.1. All applications, reports, or information submitted to the Central Coast Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting 5.2.2, 5.2.3, 5.2.4, 5.2.5, and 5.2.6 below. (40 CFR § 122.41(k).)

5.2.2. All permit applications shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. (40 CFR § 122.22(a)(1).)

5.2.3. All reports required by this Order and other information requested by the Central Coast Water Board, State Water Board, or USEPA shall be signed by a person described in Standard Provisions – Reporting 5.2.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

5.2.3.1. The authorization is made in writing by a person described in Standard Provisions – Reporting 5.2.2 above (40 CFR § 122.22(b)(1));

5.2.3.2. The 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.) (40 CFR § 122.22(b)(2)); and

5.2.3.3. The written authorization is submitted to the Central Coast Water Board and State Water Board. (40 CFR § 122.22(b)(3).)

5.2.4. If an authorization under Standard Provisions – Reporting 5.2.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting 5.2.3 above must be submitted to the Central Coast Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 CFR § 122.22(c).)

5.2.5. Any person signing a document under Standard Provisions – Reporting 5.2.2 or 5.2.3 above shall make the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information

submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." (40 CFR § 122.22(d).)

5.2.6. Any person providing the electronic signature for documents described in Standard Provisions – 5.2.1, 5.2.2, or 5.2.3 that are submitted electronically shall meet all relevant requirements of Standard Provisions – Reporting 5.2, and shall ensure that all relevant requirements of 40 CFR part 3 (Cross-Media Electronic Reporting) and 40 CFR part 127 (National Pollutant Discharge Elimination System [NPDES] Electronic Reporting Requirements) are met for that submission. (40 C.F.R § 122.22(e).)

5.3. Monitoring Reports

5.3.1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 CFR § 122.41(l)(4).)

5.3.2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Central Coast Water Board or State Water Board. As of December 21, 2016, all reports and forms must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 and comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. (40 CFR § 122.41(l)(4)(i).)

5.3.3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR part 136, or another method required for an industry-specific waste stream under 40 CFR chapter 1, subchapter N, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the Central Coast Water Board or State Water Board.
(40 CFR § 122.41(l)(4)(ii).)

5.3.4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order.
(40 CFR § 122.41(l)(4)(iii).)

5.4. Compliance Schedules

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.
(40 CFR § 122.41(l)(5).)

5.5. Twenty-Four Hour Reporting

5.5.1. The Discharger shall report any noncompliance which 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 report shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The report 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.

For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (i.e., combined sewer overflow, sanitary sewer overflow, or bypass event), type of overflow structure (e.g., manhole, combined sewer overflow outfall), discharge volume untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the event, and whether the noncompliance was related to wet weather.

As of December 2023, all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events must be submitted to the Central Coast Water Board and must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10. The reports shall comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. The Central Coast Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 CFR § 122.41(l)(6)(i).)

5.5.2. The following shall be included as information that must be reported within 24 hours:

5.5.2.1. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 CFR § 122.41(l)(6)(ii)(A).)

5.5.2.2. Any upset that exceeds any effluent limitation in this Order. (40 CFR § 122.41(l)(6)(ii)(B).)

5.5.3. The Central Coast Water Board may waive the above required written report on a case-by-case basis if an oral report has been received within 24 hours. (40 CFR § 122.41(l)(6)(ii)(B).)

5.6. Planned Changes

The Discharger shall give notice to the Central Coast Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 CFR § 122.41(l)(1)):

5.6.1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 CFR § 122.41(l)(1)(i)); or

5.6.2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are

subject neither to effluent limitations in this Order nor to notification requirements under section 122.42(a)(1) (see Additional Provisions—Notification Levels 7.1.1). (40 CFR § 122.41(l)(1)(ii).)

5.7. Anticipated Noncompliance

The Discharger shall give advance notice to the Central Coast Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with this Order's requirements. (40 CFR § 122.41(l)(2).)

5.8. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting 5.3, 5.4, and 5.5 above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting 5.5 above. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in Standard Provision – Reporting 5.5 and the applicable required data in appendix A to 40 CFR part 127. The Central Coast Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 CFR § 122.41(l)(7).)

5.9. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Central Coast Water Board, State Water Board, or USEPA, the Discharger shall promptly submit such facts or information.
(40 CFR § 122.41(l)(8).)

5.10. Initial Recipient for Electronic Reporting Data

The owner, operator, or the duly authorized representative is required to electronically submit NPDES information specified in appendix A to 40 CFR part 127 to the initial recipient defined in 40 CFR section 127.2(b). USEPA will identify and publish the list of initial recipients on its website and in the Federal Register, by state and by NPDES data group [see 40 CFR section 127.2(c)]. USEPA will update and maintain this listing. (40 CFR § 122.41(l)(9).)

6. Standard Provisions – Enforcement

6.1. The Central Coast Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13268, 13385, 13386, and 13387.

7. Additional Provisions – Notification Levels

7.1. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural Dischargers shall notify the Central Coast Water Board as soon as they know or have reason to believe (40 CFR § 122.42(a)):

7.1.1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" (40 CFR § 122.42(a)(1)):

7.1.1.1. 100 micrograms per liter (µg/L) (40 CFR § 122.42(a)(1)(i));

7.1.1.2. 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4 dinitrophenol and 2 methyl 4,6 dinitrophenol; and 1 milligram per liter (mg/L) for antimony (40 CFR § 122.42(a)(1)(ii));

7.1.1.3. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 CFR § 122.42(a)(1)(iii)); or

7.1.1.4. The level established by the Central Coast Water Board in accordance with section 122.44(f). (40 CFR § 122.42(a)(1)(iv).)

7.1.2. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following “notification levels" (40 CFR § 122.42(a)(2)):

7.1.2.1. 500 µg/L (40 CFR § 122.42(a)(2)(i));

7.1.2.2. 1 mg/L for antimony (40 CFR § 122.42(a)(2)(ii));

7.1.2.3. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 CFR § 122.42(a)(2)(iii)); or

7.1.2.4. The level established by the Central Coast Water Board in accordance with section 122.44(f). (40 CFR § 122.42(a)(2)(iv).)

8. CENTRAL COAST WATER BOARD STANDARD PROVISIONS

8.1. Central Coast Standard Provision – Prohibitions

8.1.1. Introduction of “incompatible wastes” to the treatment system is prohibited.

8.1.2. Discharge of high-level radiological waste and of radiological, chemical, and biological warfare agents is prohibited.

8.1.3. Discharge of “toxic pollutants” in violation of effluent standards and prohibitions established under section 307(a) of the CWA is prohibited.

8.1.4. Discharge of sludge, sludge digester or thickener supernatant, and sludge drying bed leachate to drainageways, surface waters, or the ocean is prohibited.

8.1.5. Introduction of pollutants into the collection, treatment, or disposal system by an “indirect discharger” that:

8.1.5.1. Inhibit or disrupt the treatment process, system operation, or the eventual use or disposal of sludge; or,

8.1.5.2. Flow through the system to the receiving water untreated; and,

8.1.5.3. Cause or “significantly contribute” to a violation of any requirement of this Order, is prohibited.

8.1.6. Introduction of “pollutant free” wastewater to the collection, treatment, and disposal system in amounts that threaten compliance with this Order is prohibited.

8.2. Central Coast Standard Provisions

8.2.1. Collection, treatment, and discharge of waste shall not create a nuisance or pollution, as defined by Water Code section 13050.

8.2.2. All facilities used for transport or treatment of wastes shall be adequately protected from inundation and washout as the result of a 100-year frequency flood.

8.2.3. Operation of collection, treatment, and disposal systems shall be in a manner that precludes public contact with wastewater.

8.2.4. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed in a manner approved by the Executive Officer.

8.2.5. Publicly owned wastewater treatment plants shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to title 23 of the California Administrative Code.

8.2.6. After notice and opportunity for a hearing, this Order may be terminated for cause, including, but not limited to:

8.2.6.1. Violation of any term or condition contained in this Order;

8.2.6.2. Obtaining this Order by misrepresentation, or by failure to disclose fully all relevant facts;

8.2.6.3. A change in any condition or endangerment to human health or environment that requires a temporary or permanent reduction or elimination of the authorized discharge; and,

8.2.6.4. A substantial change in character, location, or volume of the discharge.

8.2.7. Provisions of this Order are severable. If any provision of the permit is found invalid, the remainder of the permit shall not be affected.

8.2.8. After notice and opportunity for hearing, this Order may be modified or revoked and reissued for cause, including:

8.2.8.1. Promulgation of a new or revised effluent standard or limitation;

8.2.8.2. A material change in character, location, or volume of the discharge;

8.2.8.3. Access to new information that affects the terms of the permit, including applicable schedules;

8.2.8.4. Correction of technical mistakes or mistaken interpretations of law; and,

8.2.8.5. Other causes set forth under sub-part D of 40 CFR part 122.

8.2.9. Safeguards shall be provided to ensure maximal compliance with all terms and conditions of this Order. Safeguards shall include preventative and contingency plans and may also include alternative power sources, stand-by generators, retention capacity, operative procedures, or other precautions. Preventative and contingency plans for controlling and minimizing the effect of accidental discharges shall:

8.2.9.1. Identify possible situations that could cause “upset,” “overflow,” or “bypass,” or other noncompliance. (Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks and pipes should be considered).

8.2.9.2. Evaluate the effectiveness of present facilities and procedures and describe procedures and steps to minimize or correct any adverse environmental impact resulting from noncompliance with the permit.

8.2.10. Physical Facilities shall be designed and constructed according to accepted engineering practice and shall be capable of full compliance with this Order when properly operated and maintained. Proper operation and maintenance shall be described in an Operation and Maintenance Manual. Facilities shall be accessible during the wet-weather season.

8.2.11. The discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the discharger to achieve compliance with the conditions of this Order. Electrical and mechanical equipment shall be maintained in accordance with appropriate practices and standards, such as National Fire Protection Agency (NFPA) 70B, Recommended Practice for Electrical Equipment Maintenance; NFPA 70E, Standard for Electrical Safety in the Workplace; American National Standards Institute / InterNational Electrical Testing Association Maintenance Testing Specifications (ANSI/NETA MTS) Standard for Maintenance: Testing Specifications for Electrical Power Equipment and Systems, or procedures established by insurance companies or industry resources.

8.2.12. If the discharger’s facilities are equipped with Supervisory Control and Data Acquisition (SCADA) or other systems that implement wireless, remote operation, the discharger should implement appropriate safeguards against unauthorized access to the wireless systems. Standards such as National Institute of Standards and Technology (NIST) Special Publication (SP) 800-53, Recommended Security Controls for Federal Information Systems, can provide guidance.

8.2.13. Production and use of reclaimed water is subject to the approval of the Central Coast Water Board. Production and use of reclaimed water shall be in conformance with recycling criteria established in chapter 3, title 22, of the California Administrative Code and chapter 7, division 7, of the Water Code. An engineering report pursuant to section 60323, title 22, of the California Administrative Code is required and a waiver or water recycling requirements

from the Central Coast Water Board is required before reclaimed water is supplied for any use, or to any user, not specifically identified and approved either in this Order or another order issued by the Central Coast Water Board.

8.3. Central Coast Standard Provisions – General Monitoring Requirements

8.3.1. If results of monitoring a pollutant appear to violate effluent limitations based on a weekly, monthly, 30-day, or six-month period, but compliance or noncompliance cannot be validated because sampling is too infrequent, the frequency of sampling shall be increased to validate the test within the next monitoring period. The increased frequency shall be maintained until the Executive Officer agrees the original monitoring frequency may be resumed.

For example, if copper is monitored annually and results exceed the six-month median numerical effluent limitation in the permit, monitoring of copper must be increased to a frequency of at least once every two months (Central Coast Standard Provisions – Definitions 1.7.13.). If suspended solids are monitored weekly and results exceed the weekly average numerical limit in the permit, monitoring of suspended solids must be increased to at least four (4) samples every week (Central Coast Standard Provisions – Definitions 1.7.14.).

8.3.2. Water quality analyses performed in order to monitor compliance with this Order shall be by a laboratory certified by the Environmental Laboratory Accreditation Program (ELAP) for the constituent(s) being analyzed. Bioassay(s) performed in order to monitor compliance with this Order shall be in accord with guidelines approved by the State Water Board and the California Department of Fish and Wildlife. If the laboratory used or proposed for use by the discharger is not certified by ELAP or, where appropriate, the Department of Fish and Wildlife due to restrictions in the State's laboratory certification program, the discharger shall be considered in compliance with this provision provided:

8.3.2.1. Data results remain consistent with results of samples analyzed by the Central Coast Water Board;

8.3.2.2. A quality assurance program is used at the laboratory, including a manual containing steps followed in this program that is available for inspections by the staff of the Central Coast Water Board; and,

8.3.2.3. Certification is pursued in good faith and obtained as soon as possible after the program is reinstated.

8.3.3. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. Samples shall be taken during periods of peak loading conditions. Influent samples shall be samples collected from the combined flows of all incoming wastes, excluding recycled wastes. Effluent samples shall be samples collected downstream of the last treatment unit and tributary flow and upstream of any mixing with receiving waters.

8.3.4. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.

8.4. Central Coast Standard Provisions – General Reporting Requirements

8.4.1. Reports of marine monitoring surveys conducted to meet receiving water monitoring requirements of the Monitoring and Reporting Program shall include at least the following information:

8.4.1.1. A description of climatic and receiving water characteristics at the time of sampling (weather observations, floating debris, discoloration, wind speed and direction, swell or wave action, time of sampling, tide height, etc.).

8.4.1.2. A description of sampling stations, including differences unique to each station (e.g., station location, grain size, rocks, shell litter, calcareous worm tubes, evident life, etc.).

8.4.1.3. A description of the sampling procedures and preservation sequence used in the survey.

8.4.1.4. A description of the exact method used for laboratory analysis. In general, analysis shall be conducted according to Central Coast Standard Provisions – 8.3.1 above, and Federal Standard Provision – Monitoring 3.2. However, variations in procedure are acceptable to accommodate the special requirements of sediment analysis. All such variations must be reported with the test results.

8.4.1.5. A brief discussion of the results of the survey. The discussion shall compare data from the control station with data from the outfall stations. All tabulations and computations shall be explained.

8.4.2. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule shall be submitted within 14 days following each scheduled date unless otherwise specified within the permit. If reporting noncompliance, the report shall include a description of the reason, a description and schedule of tasks necessary to achieve compliance, and an estimated date for achieving full compliance. A second report shall be submitted within 14 days of full compliance.

8.4.3. The Discharger shall file a Report of Waste Discharge or secure a waiver from the Executive Officer at least 180 days before making any material change or proposed change in the character, location, or plume of the discharge.

8.4.4. Within 120 days after the Discharger discovers, or is notified by the Central Coast Water Board, that monthly average daily flow will or may reach design capacity of waste treatment and/or disposal facilities within four (4) years, the Discharger shall file a written report with the Central Coast Water Board. The report shall include:

8.4.4.1. The best estimate of when the monthly average daily dry weather flow rate will equal or exceed design capacity; and,

8.4.4.2. A schedule for studies, design, and other steps needed to provide additional capacity for waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units.

In addition to complying with Federal Standard Provision – Reporting 5.2, the required technical report shall be prepared with public participation and reviewed, approved and jointly submitted by all planning and building departments having jurisdiction in the area served by the waste collection, treatment, or disposal facilities.

8.4.5. All Dischargers shall submit reports electronically to the State Water Board's California Integrated Water Quality System (CIWQS) database at: http://ciwqs.waterboards.ca.gov/.

In addition, Dischargers with designated major discharges shall submit a copy of each document to:

Regional Administrator
USEPA, Region 9
Attention: NPDES Permits Section (WTR-2-3)
R9NPDES@epa.gov 75 Hawthorne Street
San Francisco, California 94105

8.4.6. Transfer of control or ownership of a waste discharge facility must be preceded by a notice to the Central Coast Water Board at least 30 days in advance of the proposed transfer date. The notice must include a written agreement between the existing discharger and proposed discharger containing specific date for transfer of responsibility, coverage, and liability between them. Whether a permit may be transferred without modification or revocation and reissuance is at the discretion of the Central Coast Water Board. If permit modification or revocation and reissuance is necessary, transfer may be delayed 180 days after the Central Coast Water Board's receipt of a complete permit application. Please also see Federal Standard Provision – Permit Action 2.3.

8.4.7. Except for data determined to be confidential under CWA section 308 (excludes effluent data and permit applications), all reports prepared in accordance with this Order shall be available for public inspection at the office of the Central Coast Water Board or Regional Administrator of USEPA. Please also see Federal Standard Provision – Records 4.3.

8.4.8. By April 1 of each year, the discharger shall submit an annual report to the Central Coast Water Board. The report shall contain the following:

8.4.8.1. Both tabular and graphical summaries of the monitoring data obtained during the previous year.

8.4.8.2. A discussion of the previous year's compliance record and corrective actions taken, or which may be needed, to bring the discharger into full compliance.

8.4.8.3. An evaluation of wastewater flows with projected flow rate increases over time and the estimated date when flows will reach facility capacity.

8.4.8.4. A discussion of operator certification and a list of current operating personnel and their grades of certification.

8.4.8.5. The date of the facility's Operation and Maintenance Manual (including contingency plans as described in Provision 8.2.9), the date the manual was last reviewed, and whether the manual is complete and valid for the current facility.

8.4.8.6. A discussion of the laboratories used by the discharger to monitor compliance with effluent limits and a summary of performance relative to section 8.3, General Monitoring Requirements.

8.4.8.7. If the facility treats industrial or domestic wastewater and there is no provision for periodic sludge monitoring in the Monitoring and Reporting Program (MRP), the report shall include a summary of sludge quantities, analyses of its chemical and moisture content, and its ultimate destination.

8.4.8.8. If appropriate, the report shall also evaluate the effectiveness of the local source control or pretreatment program using the State Water Board's "Guidelines for Determining the Effectiveness of Local Pretreatment Program."

8.5. Central Coast Standard Provisions – General Pretreatment Provisions

8.5.1. Discharge of pollutants by "indirect dischargers" in specific industrial sub-categories (appendix C, 40 CFR part 403), where categorical pretreatment standards have been established, or are to be established, (according to 40 CFR chapter 1, subchapter N), shall comply with the appropriate pretreatment standards:

8.5.1.1. By the date specified therein;

8.5.1.2. Within three (3) years of the effective date specified therein, but in no case later than July 1, 1984; or,

8.5.1.3. If a new indirect discharger, upon commencement of discharge.

8.6. Central Coast Standard Provision – Enforcement

8.6.1. Any person failing to file a Report of Waste Discharge (ROWD) or other report as required by this Order shall be subject to a civil penalty not to exceed $5,000 per day.

8.6.2. Upon reduction, loss, or failure of the treatment facility, the Discharger shall, to the extent necessary to maintain compliance with this Order, control production or all discharges, or both, until the facility is restored or an alternative method of treatment is provided.

8.7. Central Coast Standard Provisions – Definitions (Not otherwise included in Attachment A to this Order)

8.7.1. A "composite sample" is a combination of no fewer than eight (8) individual samples obtained at equal time intervals (usually hourly) over the specified sampling (composite) period. The volume of each individual sample is proportional to the flow rate at the time of sampling. The period shall be specified in the MRP ordered by the Executive Officer.

8.7.2. “Daily Maximum” limit means the maximum acceptable concentration or mass emission rate of a pollutant measured during a calendar day or during any 24-hour period reasonably representative of the calendar day for purposes of sampling. It is normally compared with results based on "composite samples” except for ammonia, total chlorine, phenolic compounds, and toxicity concentration. For all exceptions, comparisons will be made with results from a “grab sample”.

8.7.3. “Discharger", as used herein, means, as appropriate: (1) the Discharger, (2) the local sewering entity (when the collection system is not owned and operated by the Discharger), or (3) "indirect discharger" (where "Discharger" appears in the same paragraph as "indirect discharger”, it refers to the discharger.)

8.7.4. “Duly Authorized Representative" is one where:

8.7.4.1. The authorization is made in writing by a person described in the signatory paragraph of Federal Standard Provision 5.2.;

8.7.4.2. The authorization specifies either an individual or the occupant of a position having either responsibility for the overall operation of the regulated facility, such as the plant manager, or overall responsibility for environmental matters of the company; and,

8.7.4.3. The written authorization was submitted to the Central Coast Water Board.

8.7.5. A "grab sample" is defined as any individual sample collected in less than 15 minutes. "Grab samples” shall be collected during peak loading conditions, which may or may not be during hydraulic peaks. It is used primarily in determining compliance with the daily maximum limits identified in Central Coast Standard Provision – Provision 8.7.2. and instantaneous maximum limits.

8.7.6. "Hazardous substance” means any substance designated under 40 CFR part 116 pursuant to section 311 of the CWA.

8.7.7. "Incompatible wastes” are:

8.7.7.1. Wastes which create a fire or explosion hazard in the treatment works;

8.7.7.2. Wastes which will cause corrosive structural damage to treatment works, but in no case wastes with a pH lower than 5.0 unless the works is specifically designed to accommodate such wastes;

8.7.7.3. Solid or viscous wastes in amounts which cause obstruction to flow in sewers, or which cause other interference with proper operation of treatment works;

8.7.7.4. Any waste, including oxygen demanding pollutants such as biological oxygen demand (BOD), etc., released in such volume or strength as to cause inhibition or disruption in the treatment works and subsequent treatment process upset and loss of treatment efficiency; and,

8.7.7.5. Heat in amounts that inhibit or disrupt biological activity in the treatment works or that raise influent temperatures above 40 degrees Celsius (°C) or 104

degrees Fahrenheit (°F) unless the treatment works is designed to accommodate such heat.

8.7.8. "Indirect Discharger" means a non-domestic discharger introducing pollutants into a publicly owned treatment and disposal system.

8.7.9. "Log Mean" is the geometric mean. Used for determining compliance of fecal or total coliform populations, it is calculated with the following equation:

Log Mean = (C1 x C2 x...x Cn)1/n,

in which "n" is the number of days samples were analyzed during the period and any "C" is the concentration of bacteria in units of most probable number per 100 milliliters (MPN/100 mL) found on each day of sampling. "n" should be five or more.

8.7.10. "Mass emission rate" is a daily rate defined by the following equations: mass emission rate in pounds per day (lbs/day) = 8.34 x Q x C; and,

mass emission rate in kilograms per day (kg/day) = 3.79 x Q x C,

where "C" in mg/L is the measured daily constituent concentration or the average of measured daily constituent concentrations and "Q" in million gallons per day (MGD) is the measured daily flowrate or the average of measured daily flow rates over the period of interest.

8.7.11. The "Maximum Allowable Mass Emission Rate," whether for a month, week, day, or six-month period, is a daily rate determined with the formulas in paragraph 8.7.10, above, using the effluent concentration limit specified in the permit for the period and the average of measured daily flows (up to the allowable flow) over the period.

8.7.12. "Maximum Allowable Six-Month Median Mass Emission Rate" is a daily rate determined with the formulas in Central Coast Standard Provision – Provision 8.7.10, above, using the "Six-Month Median" effluent limit specified in the permit, and the average of measured daily flows (up to the allowable flow) over a 180-day period.

8.7.13. "Median" is the value below which half the samples (ranked progressively by increasing value) fall. It may be considered the middle value, or the average of two middle values.

8.7.14. "Monthly Average" (or "Weekly Average", as the case may be) is the arithmetic mean of daily concentrations or of daily mass emission rates over the specified 30-day (or 7-day) period.

Average = (X1 + X2 + ... + Xn) / n

in which "n" is the number of days samples were analyzed during the period and "X" is either the constituent concentration (mg/l) or mass emission rate (kg/day or lbs/day) for each sampled day. "n" should be four or greater.

8.7.15. "Municipality" means a city, town, borough, county, district, association, or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial waste, or other waste.

8.7.16. "Overflow" means the intentional or unintentional diversion of flow from the collection and transport systems, including pumping facilities.

8.7.17. "Pollutant-free wastewater" means inflow and infiltration, stormwaters, and cooling waters and condensates which are essentially free of pollutants.

8.7.18. "Primary Industry Category" means any industry category listed in 40 CFR part 122, Appendix A.

8.7.19. "Removal Efficiency" is the ratio of pollutants removed by the treatment unit to pollutants entering the treatment unit. Removal efficiencies of a treatment plant shall be determined using “Monthly averages" of pollutant concentrations (C, in mg/l) of influent and effluent samples collected about the same time and the following equation (or its equivalent):

$C_{Effluent}$ Removal Efficiency (%) = 100 x (1 – $C_{effluent}$ / $C_{influent}$)

8.7.20. "Severe property damage" means substantial physical damage to property, damage to treatment facilities which causes them to become inoperable, or substantial and permanent loss to natural resources which can reasonably be expected to occur in the absence of a "bypass”. It does not mean economic loss caused by delays in production.

8.7.21. "Sludge" means the solids, residues, and precipitates separated from, or created in, wastewater by the unit processes of a treatment system.

8.7.22. To "significantly contribute" to a permit violation means an "indirect discharger" must:

8.7.22.1. Discharge a daily pollutant loading in excess of that allowed by contract with the Discharger or by Federal, State, or Local law;

8.7.22.2. Discharge wastewater which substantially differs in nature or constituents from its average discharge;

8.7.22.3. Discharge pollutants, either alone or in conjunction with discharges from other sources, which results in a permit violation or prevents sewage sludge use or disposal; or

8.7.22.4. Discharge pollutants, either alone or in conjunction with pollutants from other sources that increase the magnitude or duration of permit violations.

8.7.23. "Toxic Pollutant" means any pollutant listed as toxic under section 307 (a) (1) of the CWA or under 40 CFR part 122, Appendix D. Violation of maximum daily discharge limitations are subject to 24-hour reporting (Federal Standard Provisions 5.5.).

8.7.24. “Zone of Initial Dilution" means the region surrounding or adjacent to the end of an outfall pipe or diffuser ports whose boundaries are defined through calculation of a plume model verified by the State Water Board.

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

Section 308 of the federal Clean Water Act (CWA) and sections 122.41(h), (j)-(l), 122.44(i), and 122.48 of title 40 of the Code of Federal Regulations (40 CFR) require that all National Pollutant Discharge Elimination System (NPDES) permits specify monitoring and reporting requirements. California Water Code (Water Code) sections 13267 and 13383 also authorize the California Regional Water Quality Control Board, Central Coast Region (Central Coast Water Board) to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. This MRP establishes monitoring, reporting, and recordkeeping requirements that implement federal and California laws and regulations.

1. GENERAL MONITORING PROVISIONS

1.1. Laboratories analyzing monitoring samples shall be certified by the State Water Resources Control Board (State Water Board) in accordance with the provision of Water Code section 13176 and must include quality assurance/quality control data with their reports.

1.2. Samples and measurements taken by the Discharger shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, water body, or substance. Monitoring locations shall not be changed without notification to and approval of the Central Coast Water Board.

1.3. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges where practicable. Once-through cooling flow for both the Circulating Water System and Auxiliary Salt Water Systems are not possible to meter. Design pump flow curves are used for these systems and are a conservative measure of seawater flow. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than ±10 percent from true discharge rates throughout the range of expected discharge volumes. Guidance in selection, installation, calibration, and operation of acceptable flow measurement devices can be obtained from the following references.

1.3.1. *A Guide to Methods and Standards for the Measurement of Water Flow*, U.S. Department of Commerce, National Bureau of Standards (NBS), NBS Special Publication 421, May 1975, 96 pp. (Available from the U.S. Government Printing Office, Washington, D.C. 20402. Order by SD Catalog No. C13.10:421.)

1.3.2. *Water Measurement Manual*, U.S. Department of Interior, Bureau of Reclamation, Second Edition, Revised Reprint, 1974, 327 pp. (Available from the U.S. Government Printing Office, Washington D.C. 20402. Order by Catalog No. 172.19/2:W29/2, Stock No. S/N 24003-0027.)

1.3.3. *Flow Measurement in Open Channels and Closed Conduits*, U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 484, October 1977, 982 pp. (Available in paper copy or microfiche from National Technical Information Services (NTIS) Springfield, VA 22151. Order by NTIS No. PB-273 535/5ST.)

1.3.4. *NPDES Compliance Sampling Manual*, U.S. Environmental Protection Agency, Office of Water Enforcement, Publication MCD-51, 1977, 140 pp. (Available from the General Services Administration (8FFS), Centralized Mailing Lists Services, Building 41, Denver Federal Center, CO 80225.)

1.4. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.

1.5. Monitoring results, including noncompliance, shall be reported at intervals and in a manner specified in this Monitoring and Reporting Program (MRP).

1.6. Unless otherwise specified by this MRP, all monitoring shall be conducted according to test procedures established at 40 CFR part 136, *Guidelines Establishing Test Procedures for Analysis of Pollutants*. All analyses shall be conducted using the lowest practical quantitation limit achievable using the specified methodology. Where effluent limitations are set below the lowest achievable quantitation limits, pollutants not detected at the lowest practical quantitation limits will be considered in compliance with effluent limitations. Analysis for toxics listed by the California Toxics Rule shall also adhere to guidance and requirements contained in the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (2005). Analyses for toxics listed in Table 3 of the *Water Quality Control Plan for Ocean Waters of California* (Ocean Plan) shall adhere to guidance and requirements contained in that document.

1.7. The Discharger shall ensure that the results of the Discharge Monitoring Report - Quality Assurance (DMR-QA) Study or the most recent Water Pollution Performance Evaluation Study are submitted annually to the State Water Board at the following address:

State Water Resources Control Board
Quality Assurance Program Officer
Office of Information Management and Analysis
1001 I Street, Sacramento, CA 95814

2. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

Table E-1. Monitoring Station Locations

Discharge Point	Monitoring Location	Monitoring Location Description[1]
	INF-001	At the cooling water intake structure and the seawater reverse osmosis (SWRO) sea water supply line at locations representative of the intake cooling water prior to any treatment.
	INF-001N	Influent wastewater at the headworks of the sanitary wastewater treatment system, prior to any treatment unit or return flows.
001	EFF-001	Location where a representative sample of commingled once-through cooling water effluent can be obtained prior to being discharged to the Pacific Ocean. Latitude: 35°12'40.0"N, Longitude: 120°51'23.3"W
	INT-001	Location where a representative sample of all in-plant waste streams can be collected prior to combining with once-through cooling water. In lieu of a monitoring station, the Discharger may report calculated sum of mass emissions measured at Monitoring Locations INT-001D, INT-001F, INT-001G, INT-001H, INT-001J, INT-001L, INT-001M, INT-001N, INT-001P, and INT-001Q as directed in section 4 of the WDRs.
001B	INT-001B	Location where a representative sample of effluent from the auxiliary seawater cooling system can be obtained prior to commingling with effluent from other waste streams in the once-through cooling water conduit and being discharged via Discharge Point 001.
001D	INT-001D	Location where a representative sample of effluent from the liquid radioactive waste treatment system can be obtained prior to commingling with effluent from other waste streams in the once-through cooling water conduit and being discharged via Discharge Point 001.
001E	INT-001E	Location where a representative sample of effluent from the service cooling water system can be obtained prior to commingling with effluent from other waste streams in the once-through cooling water conduit and being discharged via Discharge Point 001.
001F	INT-001F	Location where a representative sample of effluent from the turbine building sump equipment can be obtained prior to commingling with effluent from other waste streams in the once-through cooling water conduit and being discharged via Discharge Point 001.

Discharge Point	Monitoring Location	Monitoring Location Description[1]
001G	INT-001G	Location where a representative sample of effluent from the make-up water system can be obtained prior to commingling with effluent from other waste streams in the once-through cooling water conduit and being discharged via Discharge Point 001.
001H	INT-001H	Location where a representative sample of effluent from the steam-cycle condensate demineralizer system can be obtained prior to commingling with effluent from other waste streams in the once-through cooling water conduit and being discharged via Discharge Point 001.
001J	INT-001J	Location where a representative sample of effluent from the main condenser hot well can be obtained prior to commingling with effluent from other waste streams in the once-through cooling water conduit and being discharged via Discharge Point 001.
001L	INT-001L	Location where a representative sample of steam generator blowdown effluent can be obtained prior to commingling with effluent from other waste streams in the once-through cooling water conduit and being discharged via Discharge Point 001.
001M	INT-001M	Location where a representative sample of effluent from the wastewater holding and treatment (WHAT) system can be obtained prior to commingling with effluent from other waste streams in the once-through cooling water conduit and being discharged via Discharge Point 001.
001N	INT-001N	Location where a representative sample of effluent from the sanitary wastewater treatment system can be obtained prior to commingling with effluent from other waste streams in the once-through cooling water conduit and being discharged via Discharge Point 001.
001P	INT-001P	Location where a representative sample of SWRO system blowdown effluent can be obtained prior to commingling with effluent from other waste streams in the once-through cooling water conduit and being discharged via Discharge Point 001.
001Q	INT-001Q	Location where a representative sample of effluent from the intake structure building sumps can be obtained prior to commingling with effluent from other waste streams in the once-through cooling water conduit and being discharged via Discharge Point 001.

Discharge Point	Monitoring Location	Monitoring Location Description[1]
002	EFF-002	Location where a representative sample of screen wash auxiliary supply header effluent can be obtained prior to being discharged to the Pacific Ocean. Latitude: 35°12'28.0"N, Longitude: 120°51'22.0"W
003	EFF-003	Location where a representative sample of intake screen wash effluent can be obtained prior to being discharged to the Pacific Ocean. Latitude: 35°12'29.3"N, Longitude 120°51'22.9"W
004	EFF-004	Location where a representative sample of SWRO supply tank effluent can be obtained prior to comingling with stormwater and prior to discharge to the Pacific Ocean. Latitude: 35°12'26.3"N, Longitude: 120°51'11.6"W
016	EFF-016	Location where a representative sample of seawater supply valve box effluent can be obtained prior to being discharged to the Pacific Ocean. Latitude: 35°12'27.7"N, Longitude: 120°51'18.6"W
017	EFF-017	Location where a representative sample of effluent from the SWRO blowdown line drain valve can be obtained prior to being discharged to the Pacific Ocean. Latitude: 35°12'27.0"N, Longitude: 120°51'17.0"W
022	EFF-022	Location where a representative sample of effluent from the SWRO supply line drain can be obtained prior to being discharged to the Pacific Ocean. Latitude: 35°12'23.0"N, Longitude: 120°51'12.0"W
026	EFF-026	Location where a representative sample of intake structure backflow effluent can be obtained prior to being discharged to the Pacific Ocean when the main circulating water pumps are shut down. Latitude: 35°12'27.0"N, Longitude: 120°51'21.0"W
027	EFF-027	Location where a representative sample of screen was collection sump overflow effluent can be obtained prior to being discharged to the Pacific Ocean. Latitude: 35°12'28.4"N, Longitude: 120°51'22.4"W

[1] The north latitude and west longitude information in Table E-1 are approximate for administrative purposes.

3. INFLUENT MONITORING REQUIREMENTS

3.1. Monitoring Location INF-001

3.1.1. The Discharger shall monitor water from the intake structure at Monitoring Location INF-001 as follows:

Table E-2. Intake Cooling Water Monitoring – INF-001

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	million gallons per day (MGD)	Meter or Estimate [1]	Continuous or Calculated[1]
Temperature	degrees Fahrenheit (°F)	Metered	Continuous[2]
pH	standard units (SU)	Grab	1/Day or 1/Month[3]
Turbidity	nephelometric turbidity units (NTU)	Grab	1/Month
Ocean Plan Table 3 Pollutants[4] [5]	micrograms per liter (µg/L)	24-Hour Composite or Grab	1/5 Years

[1] The Discharger shall report the daily average and daily maximum flow rate daily and shall report the monthly mean and monthly maximum flow rate monthly, which may be calculated from a metered measurement. For estimated or calculated flow rates refer to MRP section 1.3 above.

[2] For periods when the continuous temperature measurement systems are temporarily inoperative, an alternate means[2] of measurement or calculation that provides equivalent information may be used. The Discharger must report when alternate means of measurement are used in the Self-Monitoring Report (SMR) for that monitoring period.

[3]The Discharger shall monitor pH at Monitoring Location INF-001 once per day when metal cleaning wastes are being discharged. Otherwise, the Discharger shall monitor pH once per month.

[4] The Discharger shall perform monitoring for those pollutants identified in Table 3 of the Ocean Plan once per five years. Analyses, compliance determination, and reporting for these pollutants shall adhere to applicable provisions of the Ocean Plan, including the standard monitoring procedures presented in Appendix III of the Ocean Plan. The Discharger shall establish calibration standards (or require that their contract laboratory do so) so that the minimum levels (MLs) presented in Appendix II of the Ocean Plan are the lowest calibration standards. The Discharger and its analytical laboratory shall select MLs that are below applicable water quality objectives of Ocean Plan Table 3, and when applicable water quality criteria are below all MLs, the Discharger and its analytical laboratory shall select the lowest ML.

[5] Metals with applicable water quality objectives (WQOs) established in Table 3 of the Ocean Plan shall be analyzed for total recoverable metals.

3.2. Monitoring Location INF-001N

[2] Alternative means of temperature measurement that may be used by the Discharger include collecting grab samples and taking direct temperature measurements of the intake and affected unit discharges every 12 hours.

3.2.1. The Discharger shall monitor influent to the sanitary wastewater treatment system at Monitoring Location INF-001N as follows:

Table E-3. Monitoring Station Location

Parameter	Units	Sample Type	Minimum Sampling Frequency
Biochemical Oxygen Demand 5-day @ 20 Degrees Celsius (BOD_5)	milligrams per liter (mg/L)	24-Hour Composite	1/Week[1]
Total Suspended Solids (TSS)	mg/L	24-Hour Composite	1/Week[1]

[1] Influent sampling for BOD_5 and TSS at Monitoring Location INF-001N shall be performed on the same day as effluent sampling at Monitoring Location INT-001N.

4. EFFLUENT MONITORING REQUIREMENTS

4.1. Monitoring Location EFF-001

4.1.1. The Discharger shall monitor commingled once-through cooling water effluent at Monitoring Location EFF-001 as follows.

Table E-4. Effluent Monitoring – Monitoring Location EFF-001

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow[1]	MGD	Meter or Estimate	Continuous or Calculated
pH	SU	Grab	1/Day or 1/Month[2]
Temperature[3]	°F	Metered	Continuous
Total Residual Chlorine[4]	µg/L	Metered	Continuous[5]
Chlorine Used	pounds (lbs)	Calculated	1/Day
Chlorine Injection Time	hours	Calculated	Continuous when chlorinating
Chromium (VI), Total Recoverable[6]	µg/L	Grab	1/Month
Lead, Total Recoverable	µg/L	Grab	1/Month
Mercury, Total Recoverable	µg/L	Grab	1/Month
Nickel, Total Recoverable	µg/L	Grab	1/Month
Silver, Total Recoverable	µg/L	Grab	1/Month
Cyanide, Total	µg/L	Grab	1/Month

Parameter	Units	Sample Type	Minimum Sampling Frequency
Phenolic Compounds, Non-Chlorinated	µg/L	Grab	1/Month
Chlorinated Phenolic	µg/L	Grab	1/Month
Chronic Toxicity[7]	toxicity units (TUc)[8]	Grab	1/Quarter
TSS	mg/L	Grab	1/Year
Settleable Solids	mL/L	Grab	1/Year
Turbidity	NTU	Grab	1/Month
Phosphorus, Total (as P)	mg/L	Grab	1/Year
Total Kjeldahl Nitrogen (TKN)	mg/L	Grab	1/Year
Nitrate (as N)	mg/L	Grab	1/Year
Nitrite (as N)	mg/L	Grab	1/Year
Sulfide	mg/L	Grab	1/Year
Remaining Ocean Plan Table 3 Pollutants[9] [10] [11]	µg/L	24-Hour Composite or Grab	1/Year

[1] The Discharger shall report the daily average and daily maximum flow rate daily and shall report the monthly mean and monthly maximum flow rate monthly. For estimated or calculated flow rates refer to Section 1.3 above.

[2] The Discharger shall monitor pH at Discharge Point 001 once per day when metal cleaning wastes are being discharged. Otherwise, the Discharger shall monitor pH at Discharge Point 001 once per month.

[3] For periods when the continuous temperature measurement systems are temporarily inoperative, an alternate means of measurement or calculation that provides equivalent information may be used. The Discharger must report when alternate means of measurement are used in the SMR for that monitoring period.

[4] For periods when the continuous total residual chlorine measurement systems are temporarily inoperative, an alternate means[3] of measurement or calculation that

[3] Alternate means of total chlorine residual measurement may include an engineering analysis. An engineering analysis entails the review of water box chlorine data to identify any unusual peaks. If an unusual peak is identified, Facility chemistry and environmental leadership are immediately notified. If no unusual peaks or an increase in injection rate have occurred, then a corrective action report is produced by Facility staff and notification is assigned to the Facility's NPDES chemistry engineer for evaluation. If the event covered missing peaks over a long period of time (>48 hours), previous water

provides equivalent information may be used. The Discharger must report when alternate means of measurement are used in the SMR for that monitoring period.

[5] The Discharger collects grab samples at regular frequent intervals, every eight minutes typically, from which chlorine is measured by a meter. For the purpose of total residual chlorine (TRC), this is considered a continuous sampling frequency. The six-month median and daily maximum values for TRC are calculated using the arithmetic mean of analytical results from all samples taken over the course of a day, including all samples collected when chlorine injection is not occurring. As specified in the Order at Table 2, the six-month median limit shall apply as 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. The daily maximum limit shall apply to flow-weighted average concentrations within a 24-hour period. For intermittent discharges, the daily value shall be considered equal to zero for days on which no flow from the discharge point occurred.

[6] The Discharger may at its option meet this requirement as total chromium.

[7] Whole effluent chronic toxicity monitoring shall be conducted according to the requirements established in section 5 of this MRP.

[8] "Percent Effect" results for chronic toxicity shall be reported for monitoring purposes only.

[9] The Discharger shall perform annual monitoring for those pollutants identified in Table 3 of the Ocean Plan other than the parameters already included in this table. Analyses, compliance determination, and reporting for these pollutants shall adhere to applicable provisions of the Ocean Plan, including the standard monitoring procedures presented in Appendix III of the Ocean Plan. The Discharger shall establish calibration standards (or require that its contract laboratory do so) so that the MLs presented in Appendix II of the Ocean Plan are the lowest calibration standards. The Discharger and its analytical laboratory shall select methods with MLs that are below applicable water quality objectives of Table 3, and when applicable water quality criteria are below all MLs, the Discharger and its analytical laboratory shall select the method with the lowest ML.

[10] Metals with applicable WQOs established in Table 3 of the Ocean Plan shall be analyzed for total recoverable metals.

[11] Not including acute toxicity.

4.2. Internal Monitoring Location INT-001

4.2.1. The Discharger shall calculate and report the sum of the mass emission of each in-plant low volume waste stream prior to commingling with once-through cooling water using the calculated sum of mass emissions measured at Monitoring

box and discharge data is used to calculate a ratio between the average of both water boxes and the discharge over the entire available period with no change in objection. The ratio is then used to calculate the discharge reading. Alternatively, if less than 48 hours of reading are being evaluated and a review of the water box data shows no abnormal peaks and the injection rate has not been changed, then the highest recorded peak in that time period at the same injection rate is used to substitute missing data since this is a more conservative method.

Locations INT-001D, INT-001F, INT-001G, INT-001H, INT-001J, INT-001L, INT-001M, INT-001N, INT-001P, and INT-001Q.

A composite sample shall be taken from each individual internal monitoring locations listed above as possible. The Discharger shall then use equation in footnote 2 of Table E-5 to calculate the mass emission rate from each internal discharge point and report the sum of the individual results. Individual low-volume waste stream discharges that account for no flow on the day of sample collection should not be included in the calculation. The flow rate used to determine the proportion of each individual low-volume waste stream discharge in the composited sample shall be the actual flow rate (preferred) or the estimated flow rate for the day on which samples are collected. The individual low-volume waste stream discharges listed above shall be monitored as follows:

Table E-5. Internal Effluent Monitoring – Monitoring Location INT-001

Parameter	Units	Sample Type	Minimum Sampling Frequency
Chromium (VI), Total Recoverable[1]	pounds per day (lbs/day)[2]	Flow-Weighted Composite	1/Year
Lead, Total Recoverable	lbs/day[2]	Flow-Weighted Composite	1/Year
Mercury, Total Recoverable	lbs/day[2]	Flow-Weighted Composite	1/Year
Nickel, Total Recoverable	lbs/day[2]	Flow-Weighted Composite	1/Year
Silver, Total Recoverable	lbs/day[2]	Flow-Weighted Composite	1/Year
Cyanide, Total	lbs/day[2]	Flow-Weighted Composite	1/Year
Phenolic Compounds, Non-Chlorinated	lbs/day[2]	Flow-Weighted Composite	1/Year
Chlorinated Phenolic Compounds	lbs/day[2]	Flow-Weighted Composite	1/Year

[1] The Discharger may at its option meet this requirement as total chromium.

[2] The Discharger shall report the sum of individual waste stream mass emission rates calculated using the following equation:
lbs/day = 0.00834 x Ce x Q, where: Ce = pollutant monitoring result (µg/L) and Q = maximum observed flow rate at the time of sampling (MGD).

4.3. Internal Monitoring Locations INT-001B and INT-001E

4.3.1. The Discharger shall monitor the cooling water auxiliary and service flows at internal Monitoring Locations INT-001B and INT-001E as follows:

Table E-6. Internal Effluent Monitoring – Monitoring Locations INT-001B and INT-001E

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Meter or Estimate	1/Month

4.4. Internal Monitoring Location INT-001D

4.4.1. The Discharger shall monitor the liquid radioactive waste treatment system at internal Monitoring Location INT-001D as follows:

Table E-7. Internal Effluent Monitoring – Monitoring Location INT-001D

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Meter or Estimate	1/Day or 1/Month[1]
TSS	mg/L	Grab	1/Month
Oil and Grease	mg/L	Grab	1/Quarter
Copper, Total Recoverable	mg/L	24-Hour Composite	1/Day when metal cleaning occurs
Iron, Total Recoverable	mg/L	24-Hour Composite	1/Day when metal cleaning occurs
Lithium	mg/L	Grab	1/Year
Boron	mg/L	Grab	1/Year
Hydrazine	mg/L	Grab	1/Year

[1] The Discharger shall monitor flow at Internal Monitoring Location INT-001D once per day when metal cleaning wastes are being discharged. Otherwise, the Discharger shall monitor flow Internal Monitoring Location INT-001D once per month

4.5. Internal Monitoring Locations INT-001F, INT-001H, INT-001J, INT-001L, and INT-001M

4.5.1. The Discharger shall monitor metal cleaning and low volume waste streams at internal Monitoring Locations INT-001F, INT-001H, INT-001J, INT-001L, and INT-001M as follows:

Table E-8. Internal Effluent Monitoring – Monitoring Locations INT-001F, INT-001H, INT-001J, INT-001L, INT-001M

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Meter or Estimate	1/Day or 1/Month[1]
TSS	mg/L	Grab	1/Month
Oil and Grease	mg/L	Grab	1/Quarter

Parameter	Units	Sample Type	Minimum Sampling Frequency
Copper, Total Recoverable	mg/L	24-Hour Composite	1/Day when metal cleaning occurs
Iron, Total Recoverable	mg/L	24-Hour Composite	1/Day when metal cleaning occurs

[1] The Discharger shall monitor flow at these internal monitoring locations once per day when metal cleaning wastes are being discharged. Otherwise, the Discharger shall monitor flow at these internal monitoring locations once per month.

4.6. Internal Monitoring Location INT-001N

4.6.1. The Discharger shall monitor sanitary waste at internal Monitoring Location INT-001N as follows:

Table E-9. Internal Effluent Monitoring – Monitoring Location INT-001N

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Metered or Estimated	1/Week
BOD_5	mg/L	24-Hour Composite	1/Week
BOD_5	percent removal	Calculated	1/Month
TSS	mg/L	24-Hour Composite	1/Week
TSS	percent removal	Calculated	1/Month
Oil and Grease	mg/L	24-Hour Composite	1/Week
Settleable Solids	mL/L	Grab	1/Week
Turbidity	NTU	Grab	1/Week

4.7. Internal Monitoring Locations INT-001-G, INT-001P, and INT-001Q

4.7.1. The Discharger shall monitor low volume waste streams at internal Monitoring Locations INT-001-G, INT-001P, and INT-001Q as follows:

Table E-10. Internal Effluent Monitoring – Monitoring Locations INT-001G, INT-001P, and INT-001Q

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Metered or Estimated	1/Month
TSS	mg/L	Grab	1/Month[1]
Oil and Grease	mg/L	Grab	1/Quarter[1]

[1] The Discharger shall increase the monitoring frequency to once per week at Monitoring Location INT-001P when Discharge Point 001N is discharging through Discharge Point 001P.

4.8. Monitoring Locations EFF-003 and EFF-004

4.8.1. The Discharger shall monitor effluent from Discharge Points 003 and 004 at Monitoring Locations EFF-003 and EFF-004 as follows:

Table E-11. Effluent Monitoring – Monitoring Locations EFF-003 and EFF-004

Parameter	Units	Sample Type	Minimum Sampling Frequency[1]
Flow	MGD	Metered or estimated	1/Month
TSS	mg/L	Grab	1/Month
Oil and Grease	mg/L	Grab	1/Quarter[2]
pH	standard units	Grab	1/Month
Total Residual Chlorine	µg/L	Grab[3]	1/Month
Tributyltin	µg/L	Grab[3]	1/Month
Settleable Solids	mL/L	Grab	1/Year
Turbidity	NTU	Grab	1/Month
Phosphorus, Total (as P)	mg/L	Grab	1/Year
TKN	mg/L	Grab	1/Year
Nitrate (as N)	mg/L	Grab	1/Year
Nitrite (as N)	mg/L	Grab	1/Year
Sulfide	mg/L	Grab	1/Year
Remaining Ocean Plan Table 3 Pollutants[4] [5] [6]	µg/L	Grab	1/Year

[1] Samples collected for purposes of compliance at Monitoring Locations EFF-003 and EFF-004 should be representative of process wastes prior to comingling of any stormwater and/or must not be collected during an active storm event.

[2] The Discharger shall increase the monitoring frequency to once per week at Monitoring Location EFF-003 when Discharge Point 001P is discharging through Discharge Point 003.

[3] The Discharger shall calculate and report the mass emission rate using the following equation:
lbs/day = 0.00834 x Ce x Q, where: Ce = pollutant monitoring result (µg/L) and Q = maximum observed flow rate at the time of sampling (MGD).

[4]The Discharger shall perform annual monitoring for those pollutants identified in Table 3 of the Ocean Plan other than the parameters already included in this table. Analyses, compliance determination, and reporting for these pollutants shall adhere to applicable provisions of the Ocean Plan, including the standard monitoring procedures presented in Appendix III of the Ocean Plan. The Discharger shall establish calibration standards (or require that their contract laboratory do so) so that the MLs presented in Appendix II of the Ocean Plan are the lowest calibration standards. The Discharger and its analytical laboratory shall select method with MLs

that are below applicable water quality criteria of Table 3, and when applicable water quality criteria are below all MLs, the Discharger and its analytical laboratory shall select the method with the lowest ML.

[5] Metals with applicable WQOs established in Table 3 of the Ocean Plan shall be analyzed for total recoverable metals.

[5] Not including acute toxicity.

4.9. Monitoring Locations EFF-002, EFF-016, EFF-017, EFF-022, EFF-026 and EFF-027

4.9.1. The Discharger shall monitor effluent from Discharge Points 002, 016, 017, 022, 026, and 027 at Monitoring Locations EFF-002, EFF-016, EFF-017, EFF-022, EFF-026, and EFF-027 as follows:

Table E-12. Effluent Monitoring – Monitoring Locations EFF-002, EFF-016, EFF-017, EFF-022, EFF-026, and EFF-027

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow	MGD	Metered or Estimated	1/Month
TSS	mg/L	Grab	1/Year or 1/Month[1]
Oil and Grease	mg/L	Grab	1/Year or 1/Quarter[1]
pH	standard units	Grab	1/Year or 1/Month[1]
Settleable Solids	mL/L	Grab	1/Year
Turbidity	NTU	Grab	1/Year or 1/Month[1]
Phosphorus, Total (as P)	mg/L	Grab	1/Year
TKN	mg/L	Grab	1/Year
Nitrate (as N)	mg/L	Grab	1/Year
Nitrite (as N)	mg/L	Grab	1/Year
Sulfide	mg/L	Grab	1/Year
Ocean Plan Table 3 Pollutants[2] [3] [4]	µg/L	24-Hour Composite or Grab	1/Year

[1] Discharger shall sample once in the first year following the effective date of this Order and then monthly or quarterly thereafter as specified (see Fact Sheet section 7.2.3).

[2] If no discharge occurs during the monitoring period, the Discharger shall report this in the SMR.

[3] The Discharger shall perform monitoring for those pollutants identified in Table 3 of the Ocean Plan once per year. Analyses, compliance determination, and reporting for these pollutants shall adhere to applicable provisions of the Ocean Plan, including the standard monitoring procedures presented in Appendix III of the Ocean Plan. The Discharger shall establish calibration standards (or require that its contract laboratory do so) so that the MLs presented in Appendix II of the Ocean Plan are the lowest calibration standards. The Discharger and its analytical laboratory shall select MLs that are below applicable water quality criteria of Ocean Plan Table 3, and when

applicable water quality criteria are below all MLs, the Discharger and its analytical laboratory shall select the lowest ML.

[4] Metals with applicable WQOs established in Table 3 of the Ocean Plan shall be analyzed for total recoverable metals.

[4] Not including acute toxicity.

5. WHOLE EFFLUENT TOXICITY (WET) TESTING REQUIREMENTS

5.1. Chronic Toxicity

WET refers to the overall aggregate toxic effect to aquatic organisms from all pollutants contained in a facility's wastewater (effluent). The control of WET is one approach this Order uses to control the discharge of toxic pollutants. WET tests evaluate 1) the aggregate toxic effects of all chemicals in the effluent including additive, synergistic, or antagonistic effects; 2) the effects of unmeasured chemicals in the effluent; and 3) variability in bioavailability of the chemicals in the effluent. Monitoring to assess the overall toxicity of the effluent is required to answer the following questions: (1) Does the effluent comply with permit effluent limitations for toxicity thereby ensuring that water quality standards are achieved in the receiving water? (2) If the effluent does not comply with permit effluent limitations for toxicity, is the observed toxicity causing risk to aquatic life? and (3) If the effluent does not comply with permit effluent limitations, is the observed toxicity caused by one or more pollutants that are measured or unmeasured?

5.1.1. Chronic Marine Species and Test Methods

Chronic toxicity measures a sublethal effect (e.g., reduced growth or reproduction) to experimental test organisms exposed to an effluent compared to that of the control organisms.

Chronic Toxicity (TUc) = 100/no observed effect level (NOEL)

The NOEL is the maximum tested concentration in a medium that does not cause known adverse effects upon chronic exposure in the species in question (i.e., the highest effluent concentration to which organisms are exposed in a chronic test that causes no observable adverse effects on the test organisms; e.g., the highest concentration of a toxicant to which the values for the observed responses are not statistically significantly different from the controls). Examples of chronic toxicity include but are not limited to measurements of toxicant effects on reproduction, growth, and sublethal effects that can include behavioral, physiological, and biochemical effects.

The presence of chronic toxicity in the Facility effluent shall be estimated as specified in *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms*, Environmental Protection Agency (EPA)-821/600/R-95/136; *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms*, EPA-821-R-02-014 or *Procedures Manual for Conducting Toxicity Tests developed by the Marine Bioassay Project*, State Water

Board 1996, 96-1WQ; and/or *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms,* EPA/600/4-87-028 or subsequent editions.

In accordance with the Ocean Plan, Appendix III, *Standard Monitoring Procedures*, the Discharger shall use the critical life stage toxicity tests specified in Table E-13 to measure chronic toxicity. Other species or protocols may be added to the list after the State Water Board review and approval.

Table E-13. Chronic Toxicity Approved Tests

Species	Effect	Tier[1]	Reference[2]
Giant Kelp, *Macrocystis pyrifera*	Percent germination; germ tube length	1	a, c
Red abalone, *Haliotis rufescens*	Abnormal shell development	1	a, c
Oyster, *Crassostrea gigas*; Mussels, *Mytilus* spp	Abnormal shell development percent survival	1	a, c
Urchin, *Strongylocentrotus purpuratus*; Sand dollar, *Dendraster excentricus*	Percent normal development	1	a, c
Urchin, *Strongylocentrotus purpuratus*; Sand dollar, *Dendraster excentricus*	Percent fertilization	1	a, c
Shrimp, *Holmesimysis costata*	Percent survival; growth	1	a, c
Shrimp, *Mysidopsis bahia*	Percent survival; growth; fecundity	2	b, d
Topsmelt, *Atherinops affinis*	Larval growth rate; percent survival	1	a, c
Silversides, *Menidia beryllina*	Larval growth rate; percent survival	2	b, d

[1] First tier methods are preferred for compliance monitoring. If first tier organisms are not available, the Discharger can use a second-tier test method following approval by the Central Coast Water Board.

[2] Protocol References:

a. Chapman, G.A., D.L. Denton, and J.M. Lazochak. 1995. *Short-term methods for estimating the chronic toxicity of effluents and receiving waters to west coast marine and estuarine organisms*. U.S. Environmental Protection Agency (USEPA) Report No. EPA/600/R-95/136.

b. Klemm, D.J., G.E. Morrison, T.J. Norberg-King, W.J. Peltier, and M.A. Heber. 1994. *Short-term methods for estimating the chronic toxicity of effluents and receiving waters to marine and estuarine organisms*. USEPA Report No. EPA-600-4-91-003.

c. SWRCB 1996. *Procedures Manual for Conducting Toxicity Tests Developed by the Marine Bioassay Project*. 96-1WQ.

d. Weber, C.I., W.B. Horning, I.I., D.J. Klemm, T.W. Neiheisel, P.A. Lewis, E.L. Robinson, J. Menkedick and F. Kessler (eds). 1988. *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and*

Estuarine Organisms. EPA/600/4-87/028. National Information Service, Springfield, VA.

5.1.2. **Species Sensitivity Screening**

5.1.2.1. The Discharger shall conduct species sensitivity screening during the first required chronic toxicity sampling event after the effective date of this Order, or may use existing species sensitivity screening results provided that the existing results are still valid and relevant for current discharge conditions.[4]

5.1.2.2. For the screening event, the Discharger shall collect a single effluent sample to initiate and concurrently conduct three toxicity tests using a fish, an invertebrate, and an alga species, to be selected from the list of approved tests referenced in Table E-13. This sample shall also be analyzed for the parameters required on a monthly frequency for the discharge during that given month.

5.1.2.3. For those tests that require collection of additional renewal samples (as specified in the listed test method protocols), a second and third sample shall be collected. If the results of all three species do not exceed the chronic toxicity trigger of 3.9, then the species that exhibited the highest "Percent Effect" shall be used for routine monitoring during the term of this permit.

5.1.2.4. If the results of all three species results in a single exceedance of the chronic toxicity trigger, then that species resulting in the exceedance shall be used for routine monitoring during the term of this Order.

5.1.2.5. Likewise, if the results of all three species results in two or more species with an exceedance of the chronic toxicity trigger, then the species that exhibits the highest "Percent Effect" shall be used for routine monitoring during the term of this Order.

5.1.2.6. The species used to conduct routine chronic toxicity effluent monitoring shall be the most sensitive species from the most recent species sensitivity screening. To select the most sensitive species for the term of the next order, rescreening shall be conducted prior to permit reissuance and the results submitted with the Report of Waste Discharge (ROWD).

5.1.2.7. Toxicity results obtained during the species screening may be used to evaluate compliance with the chronic toxicity trigger. During the calendar month, toxicity tests used to determine the most sensitive test species shall be reported as effluent compliance monitoring results.

5.2. Quality Assurance and Additional Requirements

Quality assurance measures, instructions, and other recommendations and requirements are found in the test methods manuals previously referenced. Additional requirements are specified below.

[4] Please see section 7.3.1 of the Fact Sheet for a discussion on historic species sensitivity screening.

5.2.1. The Discharger shall perform toxicity tests on final effluent samples. If the effluent is to be discharged to a marine or estuarine system (e.g., salinity values in excess of 1,000 milligrams per liter; mg/L) and originates from a freshwater supply, salinity of the effluent must be increased with dry ocean salts (e.g., FORTY FATHOMS®) to match salinity of the receiving water. This modified effluent shall then be tested using marine species.

5.2.2. Reference toxicant test results shall be submitted with the effluent sample test results. Both tests must satisfy the test acceptability criteria specified in EPA-821-R-02-012. If the test acceptability criteria are not achieved, the sample shall be retaken and retested within 14 days of the failed sampling event. The retest results shall be reported in accordance with EPA-821-R-02-012 (chapter on report preparation) and the results shall be attached to the next monitoring report.

5.2.3. Dilution and control waters shall be obtained from an area of the receiving waters, typically upstream, that is unaffected by the discharge. Standard dilution water can be used if the receiving water itself exhibits toxicity or if approved by the Central Coast Water Board. If the dilution water used in testing is different from the water in which the test organisms were cultured, a second control sample using culture water shall be tested.

5.3. Conducting Toxicity Identification Evaluations (TIEs) and Toxicity Reduction Evaluations (TREs)

5.3.1. A TRE shall be implemented by the Discharger as specified by the Executive Officer. A TIE may be required as part of the TRE.

5.3.2. The TIE shall be conducted to identify and evaluate toxicity in accordance with procedures recommended by the U.S. Environmental Protection Agency (USEPA) which include the following:

5.3.2.1. Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I, (USEPA, 1992a);

5.3.2.2. Methods for Aquatic Toxicity Identification Evaluations: Phase 1 Toxicity Characterization Procedures, Second Edition (USEPA, 1991a);

5.3.2.3. Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Sampling Exhibiting Acute and Chronic Toxicity (USEPA, 1993a); and

5.3.2.4. Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity (USEPA, 1993b).

5.3.3. As part of the TIE investigation, the Discharger shall be required to implement its TRE work plan. The Discharger shall take all reasonable steps to control toxicity once the source of the toxicity is identified. A failure to conduct required toxicity tests or a TRE within a designated period may result in the establishment of numerical effluent limitations for chronic toxicity in a permit or appropriate

enforcement action. Recommended guidance in conducting a TRE includes the following:

5.3.3.1. *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants*, August 1999, EPA/833B-99/002; and

5.3.3.2. *Clarifications Regarding Toxicity Reduction and Identification Evaluations in the National Pollutant Discharge Elimination System Program* dated Mary 27, 2001, USEPA Office of Wastewater Management, Office of Regulatory Enforcement.

5.4. Chronic Toxicity Reporting

5.4.1. The Discharger shall include a full report of chronic toxicity test results with the regular quarterly monitoring report and include the following information:

5.4.1.1. Toxicity test results,

5.4.1.2. Dates of sample collection and initiation of each toxicity test, and/or

5.4.1.3. Toxicity discharge limitations (or value).

5.4.2. Summary water quality measurements for each toxicity test (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, chlorine, ammonia).

5.4.3. Toxicity test results shall be reported according to the appropriate guidance – *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition, USEPA Office of Water, EPA-821-R-01-012 (2002) or the latest edition or *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, EPA-821-R-02-012 (2002) or subsequent editions.

5.4.4. If the TRE work plan is used to determine that additional (accelerated) toxicity testing is unnecessary, these results shall be submitted with the monitoring report for the time period in which the investigation conducted under the TRE work plan occurred.

5.4.5. Statistical program output results, including graphical plots, for each toxicity test.

5.4.6. Graphical plots and tables clearly showing the laboratory's performance for the reference toxicant for the previous 20 tests.

5.4.7. Any additional quality assurance/quality control (QA/QC) documentation or any additional chronic toxicity-related information, upon written request from the Central Coast Water Board and/or USEPA Region 9.

6. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

7. RECYCLING MONITORING REQUIREMENTS – NOT APPLICABLE

8. RECEIVING WATER MONITORING REQUIREMENTS

8.1 Visual Monitoring

8.1.1. The Discharger shall conduct weekly visual observations of the intake and receiving waters near all discharge points. Visual monitoring must include observations of wind (direction and speed), weather (e.g., cloudy, sunny, rainy), antecedent rainfall (seven-day), sea state, and tidal conditions (e.g., high, slack, or low tide). Observations should document any visible sheens, films, foams, discolorations, trash, or other floating materials. Observations shall include an estimation of the percent of Diablo Cove surface area covered by sea foam. Findings must be recorded in a log and documented with time-stamped photographs.

8.2. Ecological Monitoring Program[5]

The Discharger shall continue implementation of the Facility Ecological Monitoring Program as revised herein. A report documenting the data collected during the previous year shall be submitted by April 30 of each year.

8.2.1. Intertidal Monitoring

The Discharger shall continue an intertidal monitoring program that includes horizontal band transect surveys within Diablo Cove, in Field's Cove, and at reference stations located to the north and south of Diablo Canyon. Horizontal transect surveys shall be conducted four times a year and may be reduced to twice per year based on analysis. Scheduling of surveys shall coincide with the annual peaks and lows in algal abundance. Vertical band transect surveys (not part of the base monitoring program) shall be implemented as necessary to verify or explain changes in abundance of organisms along the horizontal band transects that may be attributed to shifts in vertical distribution. Temperature monitoring shall be conducted continuously at the seven horizontal band transect stations.

Data collection for the horizontal band transect surveys shall focus on a set of species that were selected by agreement among the Discharger, the California Department of Fish and Wildlife, and the Central Coast Water Board. Species were selected based on their numerical dominance in the community and their ecological or commercial importance. The presence and condition of other species shall also be noted during each survey.

8.2.1.1. Horizontal Band Transect Surveys

The abundance of selected dominant algae, seagrasses and invertebrates shall be monitored four times per year at the following Horizontal Band Transect locations; NC 1, NC 2, FC-1, FC-2, FC-3, NDC-1, NDC-2, NDC-3, SDC-1, SDC-2, SDC-3, SDP1, SDP 2 and SC-1 (Figure B-3 in Attachment B). The horizontal band transect stations shall consist of 10 one-meter squared (m^2) quadrants located along permanent 30-meter transects parallel to w the water line at the +0.9m (+3 ft) mean lower low water (MLLW) and +0.3m (+1 ft) MLLW tide

[5] See Fact Sheet section 7.4.2. for historical changes to Receiving Water Monitoring Plan.

levels.[6]. The deposition rate of sediments shall be observed and reported for each sampling event and compared to previous observations.

8.2.1.2. Vertical Band Transect Fish Surveys

The Discharger shall conduct fish surveys four times per year of the vertical band transects located at NC 1V, FC 1V, NDC 1V, SDC 2V and SC 1V (Figure B-4 in Attachment B). Each station shall consist of two or three vertically oriented transects containing 12 1-meter squared (m^2) quadrants. Each transect shall extend from approximately the high intertidal zone, approximately +1.5 m (4.9ft) MLLW to the low intertidal zone, approximately -0.2 m (0.6ft)MLLW.

8.2.2 Subtidal Monitoring

The Discharger shall continue a subtidal monitoring program that includes benthic and fish transect surveys.

8.2.2.1. Subtidal Benthic Observations

The Discharger shall monitor the composition and abundance of benthic algae and invertebrates four times a year at locations: FC 1 -3m (-10ft), NDC 2 -3m (-10ft), NDC 3 -3m , NDC 4 -4m(-13 ft),, SDC 2 -3m SDC 3 -4m(-13 ft), SC 1 -3m (-10ft), and SC 2 -6m (-20 ft) (Figure B-5 in Attachment B). Each sampling station shall circular and consist of a 3.15 m (10.33 ft) radius and 28-meter squared (m^2) (301.4 ft^2) sampling area minus the center area, m^2 closest to the mooring anchor, approximately 7.0 m^2 (75.3 ft^2). Each sampling circle shall be divided into four equal arc quadrants. Sampling events shall consists of the following sampling methods: subtidal arc quadrant method (SAQ) which involves invertebrate and kelp plant counts regardless of size, the subtidal line contact method (SLC) which involves identification of understory algal species, habitat forming sessile invertebrates and substrates at randomized points within the arc quadrant, and finally the subtidal fixed quadrant method (SFQ) which records the abundance of invertebrates in four permanent circular quadrats 0.25 m^2 (2.7 ft^2 within each of the four SAQ quadrants.

8.2.2.2. Subtidal Fish Observations

The Discharger shall monitor the composition and abundance of subtidal fish communities four times per year. at observation 12 stations FC FO-1, FC FO-2, FC FO-3, NDC FO-1, NDC FO-2, NDC FO-3 SDC FO-1, SDC FO-2, SDC FO-3 and SC FO-1, SC FO-2, and SC FO-3. (Figure B-6 in Attachment B). Each station shall consist of a midwater and benthic transect of 50m (164 ft) long by 4m (13 ft) wide. The benthic transect shall be located 1 m (3 ft) above the bottom and the midwater transect shall be located above and parallel to the benthic transect and approximately midway between the surface and bottom. Each transect shall be monitored twice, using two divers counting fish at benthic

[6] SDP 1 and SDP 2 only have one transect at +0.9 m (+3ft) tide level. SDC 1 is located at +0.6 m (+2 ft) MLLW to avoid uncolonized cobble.

and midwater transects with alternating directions along the transect lines. Divers shall identify and enumerate all adult and juvenile fish species observed and identify the components of the habitat forming kelp associated with fish observed.

8.2.3. Temperature Monitoring.

During intertidal and subtidal monitoring, temperature shall be continuously monitored at hourly intervals from fixed intertidal and subtidal stations in Diablo Cove and reference areas. Intertidal temperatures shall be recorded at the at stations FC 1, FC-2, FC 3, NDC 1, NDC 2, NDC 3, SDC 1, SDC 2, SDC 3, SDP 1, SDP-2, NC-2 SC-1, SC 1-V. Subtidal temperatures shall be monitored at NC 1 -3m, FC 1 -3m, NDC 2 -3m, NDC 3 -3m, NDC 4 -4 m, SDC 1 -3m, SDC 4 -4m, SC 1 -3mand SC 2 -6 m (Figure B-7 and B-8) in Attachment B).

8.2.4. Kelp Surveys

The Discharger shall perform an annual census of habitat-forming kelp at the above areas to monitor the maximum extent at the onset of yearly senescence in bull kelp (*Nereocystis luetkeana*), giant kelp (*Macrocystis* spp.), and other associated kelp species. The survey shall be conducted each fall (September to October) to reflect peak surface canopy development. Counts and coverage estimates shall be made from permanently marked vantage points above the areas. A composite map of the visible kelp stands shall also be developed based on the findings of the survey.

9. OTHER MONITORING REQUIREMENTS

9.1. Biosolids Monitoring Requirements

9.1.1. Biosolids Reporting

The following information shall be submitted with the annual biosolids report due April 1 each year. Adequate detail shall be included to characterize biosolids in accordance with 40 CFR part 503.

9.1.1.1. Annual biosolids production in dry metric tons and percent solids.

9.1.1.2. A schematic drawing showing biosolids handling facilities (e.g., digesters, lagoons, drying beds, incinerators) and a solids-flow diagram.

9.1.1.3. A narrative description of biosolids dewatering and other treatment processes, including process parameters. For example, if biosolids are digested, report average temperature and retention time of the digesters. If drying beds are used, report depth of application and drying time. If composting is used, report the temperature achieved and duration.

9.1.1.4. A description of disposal methods, including the following information as applicable related to the disposal methods used at the facility. If more than one method is used, include the percentage and tonnage of annual biosolids production disposed by each method.

9.1.1.4.1. For landfill disposal, the Discharger shall include:

9.1.1.4.1.1. The Central Coast Water Board Waste Discharge Requirement (WDR) numbers that regulate the landfills used,

9.1.1.4.1.2. The present classifications of the landfills used, and

9.1.1.4.1.3. The names and locations of the facilities receiving biosolids.

9.1.1.4.2. For land application include:

9.1.1.4.2.1. The location of the site(s),

9.1.1.4.2.2. The Central Coast Water Board's WDR numbers that regulate the site(s),

9.1.1.4.2.3. The application rate in lbs/acre/year (specify wet or dry), and

9.1.1.4.2.4. Subsequent uses of the land.

9.1.1.4.3. For offsite application by a licensed hauler and composter, include:

9.1.1.4.3.1. The name, address, and USEPA license number of the hauler and composter.

9.1.1.4.3.2 Copies of analytical data required by other agencies (i.e., USEPA or county health department) and licensed disposal facilities (i.e., landfill, land application, or composting facility) for the previous year.

9.1.2. All reports must be submitted annually by April 1 to cover the previous calendar year reporting period, through the NPDES Electronic Reporting Tool (NeT) e-reporting system (see https://www.cdx.epa.gov/ and https://www.epa.gov/biosolids for more information.).

10. REPORTING REQUIREMENTS

10.1. General Monitoring and Reporting Requirements

10.1.1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.

10.2. Self-Monitoring Reports (SMRs)

10.2.1. The Discharger shall electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) Program website (http://www.waterboards.ca.gov/water_issues/programs/ciwqs/). The CIWQS website will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.

10.2.2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections 3 through 9. The Discharger shall submit SMRs that include the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. SMRs are to include all new monitoring results obtained since the last SMR was submitted. If the Discharger monitors any pollutant more frequently than required by this Order, the results of

this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

10.2.3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table E-14. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
Continuous	<Permit effective date>	All	Submit with quarterly SMR
Hourly	<Permit effective date>	Hourly	Submit with quarterly SMR
Daily	<Permit effective date>	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling	Submit with quarterly SMR
Weekly	<Sunday following permit effective date or on permit effective date if on a Sunday>	Sunday through Saturday	Submit with quarterly SMR
Monthly	<First day of calendar month following permit effective date or on permit effective date if that date is first day of the month>	1st day of calendar month through last day of calendar month	Submit with quarterly SMR
Quarterly	<Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date>	January 1 through March 31, April 1 through June 30, July 1 through September 30, October 1 through December 31	May 1, August 1, November 1, February 1
Semiannually	<Closest of January 1 or July 1 following (or on) permit effective date>	January 1 through June 30 July 1 through December 31	August 1, February 1
Annually	<January 1 following (or on) permit effective date>	January 1 through December 31	April 1

10.2.4. Section 3.2 of the Standard Provisions (Attachment D) includes the standard provisions for test procedures. USEPA published regulations for the Sufficiently Sensitive Methods Rule (SSM Rule), which became effective September 18, 2015. For the purposes of the NPDES program, when more than one test

procedure is approved under 40 CFR part 136 for the analysis of a pollutant or pollutant parameter, the test procedure must be sufficiently sensitive as defined at 40 CFR sections 122.21(e)(3) and 122.44(i)(1)(iv). Both 40 CFR sections 122.21(e)(3) and 122.44(i)(1)(iv) apply to the selection of a sufficiently sensitive analytical method for the purposes of monitoring and reporting under NPDES permits, including review of permit applications. A USEPA-approved analytical method is sufficiently sensitive where:

10.2.4.1. The minimum level (reported ML, also known as the reporting level, or RL) is at or below both the level of the applicable water quality criterion or objective and this Order limitation for the measured pollutant or pollutant parameter; or

10.2.4.2. In permit applications, the ML is above the applicable water quality criterion or objective, but the amount of the pollutant or pollutant parameter in a facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or

10.2.4.3. The method has the lowest ML of the USEPA-approved analytical methods where none of the USEPA-approved analytical methods for a pollutant can achieve the MLs necessary to assess the need for effluent limitations or to monitor compliance with a permit limitation. The MLs in Ocean Plan Appendix II remain applicable. However, there may be situations when analytical methods are published with MLs that are more sensitive than the MLs for analytical methods listed in the Ocean Plan. For instance, USEPA Method 1631E for mercury is not currently listed in Ocean Plan Appendix II, but it is published with an ML of 0.5 nanograms per liter (ng/L), which makes it a sufficiently sensitive analytical method. Similarly, USEPA Method 245.7 for mercury is published with an ML of 5 ng/L.

10.2.5. Reporting Protocols

The Discharger shall report with each sample result the applicable reported ML and the current method detection limit (MDL), as determined by the procedure in 40 CFR part 136.

The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

10.2.5.1. Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

10.2.5.2. Sample results less than the reported ML, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

For the purposes of data collection, the laboratory shall record the estimated chemical concentration next to DNQ. The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (± a

percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

10.2.5.3. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.

10.2.5.4. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.

10.2.6. Compliance Determination

Compliance with effluent limitations for reportable pollutants shall be determined using sample reporting protocols defined above and Attachment A. For purposes of reporting and administrative enforcement by the Central Coast Water Board and State Water Board, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the reportable pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported ML.

10.2.7. Multiple Sample Data

When determining compliance with a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses and the data set contains one or more reported determinations of DNQ or ND, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

10.2.7.1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

10.2.7.2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

10.2.8. The Discharger shall submit SMRs in accordance with the following requirements:

10.2.8.1. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.

10.2.8.2. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the waste discharge requirements, discuss corrective actions taken or planned, and propose a time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.

10.3. Discharge Monitoring Reports (DMRs)

10.3.1. DMRs are USEPA reporting requirements. The Discharger shall electronically certify and submit DMRs together with SMRs using Electronic Self-Monitoring Reports module eSMR 2.5 or any upgraded version. Electronic DMR submittal shall be in addition to electronic SMR submittal. Information about electronic DMR submittal is available at the DMR website: (http://www.waterboards.ca.gov/water_issues/programs/discharge_monitoring).

10.4. Other Reports and Notifications

10.4.1. The Discharger shall report the results of any special studies, chronic toxicity testing, TRE/TIE, best management practices (BMPs), pollutant minimization program (PMP), and pollution prevention plan required by Special Provisions – 6.3 of the WDRs. The Discharger shall submit reports with the first SMR scheduled to be submitted on or immediately following the report due date.

10.4.2. If applicable, the Discharger shall report BMPs that are maintained or implemented at the Facility, including documentation of conditions prior to implementation, a description of the BMPs, and period of implementation. The Discharger shall maintain and make available to the Central Coast Water Board upon request a BMP inspection log and shall certify within the report that the log has been maintained.

10.4.3. The Discharger shall submit receiving water summary reports (Visual Monitoring and Ecological Monitoring Program) to the Central Coast Water Board within two months of completion of the summer and winter surveys. The Discharger shall immediately report substantive changes in community composition from historical trends or the presence of adverse condition factors to the Central Coast Water Board.

10.4.4. The Discharger shall report pump station failures resulting in discharges of sewage effluent from Discharge Point 001N to Intake Cove or Discharge Point 003 to the Central Coast Water Board within 24 hours. Written confirmation of this discharge shall be included in the first SMR following the pump failure.

10.4.5. The Discharger shall provide written confirmation of a temporary rerouting of the discharge from Discharge Point 001P to Discharge Point 003 with the first SMR following the rerouting with an explanation of the need for the rerouting.

10.4.6. The Discharger shall immediately report details of any bypass or damage of the 5-micron filters in the liquid radioactive waste system to the Executive Officer.

10.4.7. The Discharger shall submit a copy of information contained in reports to the Nuclear Regulatory Commission (NRC) and/or the California Department of Health Services related to the marine environment to the Executive Officer. Results of radiological monitoring of the receiving water shall be reported at the same time reports are made to the NRC.

ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

As described in section 2.2 of this Order, the California Regional Water Quality Control Board, Central Coast Region (Central Coast Water Board) incorporates this Fact Sheet as findings of the Central Coast Water Board supporting the issuance of this Order. This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

This Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for dischargers in California. Only those sections or subsections of this Order that are specifically identified as "not applicable" have been determined not to apply to the Discharger. Sections or subsections of this Order not specifically identified as "not applicable" are fully applicable to the Discharger.

1. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information

Waste Discharge Identification (WDID)	3 402003001
Discharger	Pacific Gas and Electric Company (PG&E)
Name of Facility	Diablo Canyon Power Plant (DCPP)
Facility Address	9 Miles Northwest of Avila Beach (3890 Diablo Canyon Road)
Facility Address	Avila Beach, CA 93424
Facility Address	San Luis Obispo County
Facility Contact, Title and Phone	Trevor Rebel, Manager, Environmental Permitting and Decommissioning, (805) 441-5435
Authorized Person to Sign and Submit Reports	Thomas P. Jones, Senior Director, Regulatory, Environmental, and Repurposing (805) 459-4530
Mailing Address	P.O. Box 56, Avila Beach, CA 93424
Billing Address	Same
Type of Facility	Nuclear Steam Electric Power Generating (SIC 4911)
Major or Minor Facility	Major
Threat to Water Quality	1
Complexity	A
Pretreatment Program	N
Recycling Requirements	N
Facility Permitted Flow	2,760 million gallons per day (MGD)
Facility Design Flow	2,760 MGD
Watershed	Estero Bay Hydrologic Unit
Receiving Water	Pacific Ocean
Receiving Water Type	Ocean waters

1.1. PG&E (hereinafter Discharger) is the owner and operator of the Diablo Canyon Power Plant (hereinafter Facility), a nuclear power plant.

For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

1.2. The Facility discharges wastewater to the Pacific Ocean, a water of the United States. The Discharger was previously regulated by Order 90-09, National Pollutant Discharge Elimination System (NPDES) Permit CA0003751, which was adopted on May 11, 1990, and expired on July 1, 1995.[7] Attachment B provides maps of the Facility, discharge points, and monitoring locations. Attachment C provides a flow schematic of the Facility.

1.3. Due to the amount of time that had passed since the previous NPDES permit was issued, the Central Coast Water Board required that the Discharger file a new report of waste discharge and submit an application for reissuance of its waste discharge requirements (WDRs) and NPDES permit by letter dated April 16, 2025. Supplemental information was requested on June 9, 2025, and received on September 11, 2025. The application was deemed complete on October 20, 2025.

1.4. Regulations in title 40 of the Code of Federal Regulations (CFR) part 122.46 limit the duration of NPDES permits to a fixed term not to exceed five years. However, pursuant to California Code of Regulations, title 23, section 2235.4 and 40 C.F.R. section 122.6 subd. (d), the terms and conditions of an expired permit are automatically continued pending reissuance of the permit if the discharger complies with all federal NPDES requirements for continuation of expired permits.

1.5. The Central Coast Water Board has begun permit renewal processes numerous times since 1995. However, various circumstances delayed action. These circumstances include federal rulemaking to implement Clean Water Act (CWA) requirements and subsequent litigation; state rulemaking, which resulted in adoption of the State Water Board's *Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling* (OTC Policy); resolution of alleged permit violations, including effects of impingement and entrainment and thermal discharges; and the Discharger's previous plans to decommission the Facility.

2. FACILITY DESCRIPTION

The Facility is a nuclear steam electrical power generation facility consisting of two pressurized reactors (Units 1 and 2), each serving as an independent generating unit. Additional Facility infrastructure includes a turbine building, seawater reverse osmosis (SWRO) system, storage tanks, a cooling water intake structure, and discharge structure. The Discharger owns and operates the Facility and leases the approximately 585 acres where the industrial operations are located from Eureka Energy Company, a subsidiary of Pacific Gas and Electric Company. The Discharger

[7] The NPDES permit has been administratively extended since it expired in 1995 pursuant to 23 Cal. Code Regs., section 2235.4 and 40 C.F.R. section 122.6 subd. (d).

and Eureka Energy Company also own and manage approximately 12,000 acres surrounding the Facility, which are used for livestock grazing and other activities. The Facility is located approximately 9 miles northwest of Avila Beach on a coastal bluff approximately 80 feet above sea level. The Facility has a total generating capacity of 2,269 megawatts (MW) and provides electrical services to central and northern California.

2.1. Description of Wastewater and Biosolids Treatment and Controls

The Facility is authorized to discharge up to 2,760 million gallons per day (MGD) of once-through cooling water and other commingled waste streams to the Pacific Ocean at Diablo Cove. The Facility's shoreline intake structure draws water to the once-through cooling system from a separate cove, referred to as Intake Cove, to the immediate south of Diablo Cove. The intake structure is fitted with bar racks and vertical traveling screens. Debris removed from the screens via high-pressure sprays is passed through a grinder pump and collection basin before being discharged back to the Pacific Ocean. Larger debris is removed for disposal. Although Units 1 and 2 have independent nuclear reactors and once-through cooling water systems, they utilize the same intake and discharge structures. As shown in the Facility process flow schematic (Figure C-1 of Attachment C), the intake system supplies seawater to the nuclear reactor systems for condenser cooling as well as the SWRO system to produce the fresh water used at the Facility. The intake volume from October 2023 through September 2024 ranged from 1,360 to 2,569 MGD, with a daily average of 2,212 MGD.

The associated Facility wastewater treatment systems are described below.

2.1.1. Sanitary Wastewater Treatment System

The sanitary wastewater treatment system is an intermittent cycle extended aeration system (ICEAS). The system facilitates primary and secondary sewage treatment. There are three steps in the treatment cycle: aeration, sedimentation, and decanting. Primary treatment is the solids/sludge-settling and aqueous separation/decant process. The secondary treatment process is forced aeration that promotes the growth of aerobic organisms and facilitates aerobic metabolism.

The system flow rate during routine plant operations and plant staffing levels (non-outage) is approximately 12,000 to 18,000 gallons per day (gpd). The treatment system flow rate during unit refueling (outage), when additional temporary staff are onsite, ranges from approximately 22,000 to 30,000 gpd. The system is designed to treat a maximum of 60,000 gpd. Treated effluent flows to a pump station that directs flow to the combined plant discharge structure (Discharge Point No. 001).

Accumulated biosolids from the sanitary wastewater treatment system are pumped to a third tank chamber for accumulation and subsequent removal by an offsite vendor (vacuum tanker) for treatment at the Santa Maria wastewater treatment plant. During non-outage times, sludge is removed approximately every

two weeks. During refueling outages periods, sludge is removed approximately once per week.

2.1.2. SWRO Treatment System

The SWRO treatment system supplies the majority of the freshwater for the Facility's primary and secondary systems makeup, fire protection system, and domestic water supply system. The system has the capacity to produce 450 gallons per minute of freshwater. Brine produced from SWRO system processes is discharged into the auxiliary seawater system where it is mixed and is diluted with cooling water prior to discharge at Discharge Point 001. The volume of brine produced through the SWRO system is typically less than 5 percent of the total volume of seawater discharged per day.

2.1.3. WHAT System

The wastewater holding and treatment (WHAT) system is used to treat wastewaters from the turbine building sump and waste regenerant liquid from the steam-cycle condensate demineralizers. The WHAT treatment system includes, as needed, coagulation, settling, oil removal, pH adjustment, filtration, and/or chlorination.

2.1.4. Liquid Radioactive Waste Treatment System

Liquid radioactive waste from the reactor systems is collected, treated, and monitored in a liquid radioactive waste treatment system. This treatment system includes storage tanks for radioactive decay, evaporators, activated carbon filters, ion exchangers, and filters to remove radioactive matter. Small amounts of sodium hydroxide, sulfuric acid, and polyelectrolyte may be used as treatment aids. Solid wastes produced by ion-exchange resins and filter media are collected and packaged for off-site disposal. After decay and/or treatment, individual batches of low-level waste are sampled and analyzed to confirm compliance with Nuclear Regulatory Commission radiation dose limits for effluent, passed through a 5-micron filter, and discharged into the auxiliary seawater cooling system (Discharge Point No. 001B).

2.2. Discharge Points

The Facility discharges an average of approximately 2,500 MGD of seawater used for main condenser and auxiliary seawater cooling. This Order authorizes discharge to the Pacific Ocean through external discharge points (Discharge Points 001, 002, 003, 004, 016, 017, 022, 026, and 027). This Order also authorizes discharges of waste streams through 12 internal discharge points (Discharge Points 001B, 001D, 001E, 001F, 001G, 001H, 001J, 001L, 001M, 001N, 001P, and 001Q) that then convey wastewater to Discharge Point 001. External discharge points that discharge solely stormwater runoff are covered under the *Statewide General Permit for Discharges of Storm Water Associated with Industrial Activities* (Industrial General Permit), Order WQ 2014-0057-DWQ, as amended by Order WQ 2015-

0122-DWQ and Order WQ 2018-0028-DWQ, NPDES Order CAS000001, and are not authorized under this Order.

Order 90-09 also authorized Discharge Points 001I, 001K, 005, 006, 008, 009, 013, and 015. Discharge Points 001I and 001K were associated with internal waste streams for the seawater evaporator blowdown and condenser tube sheet leak detection dump tank. The use of these discharge points has been discontinued, and the Discharger has stated that they are no longer in service. Discharge Points 005, 006, 008, 009, 013, and 015 now consist solely of stormwater runoff. In 2023, the Discharger applied for and was granted coverage for these and other industrial stormwater discharge points under the Industrial General Permit. Based on this information, discharges from Discharge Points 001I, 001K, 005 through 015, 018, 020, 021, 023, 024, and 025 are not authorized under this Order.

The discharge points authorized in this Order and associated waste streams are described below.

2.2.1. Discharge Point 001 – Commingled Once-Through Cooling Water

Discharge 001 is a combination of once-through cooling (OTC) water that is pumped from Intake Cove through the main condensers for Units 1 and 2 and supplies the auxiliary saltwater cooling heat exchangers (Discharge Point 001B) and service cooling water heat exchangers (001E). This discharge also contains in-plant waste streams (Discharge Points 001D through 001Q, exclusive of 001I and 001K). The discharge occurs near the shoreline in Diablo Cove.

2.2.1.1. Discharge Point 001B – Auxiliary Seawater Cooling System

OTC water is used for the Component Cooling Water System heat exchangers. The Component Cooling Water System is a closed cooling water loop servicing pumps and other loads in the plant emergency cooling and spent fuel storage.

2.2.1.2. Discharge Point 001D – Liquid Radioactive Waste Treatment System

Liquid radioactive waste from reactor systems is collected, treated, and monitored in the Liquid Radioactive Waste Treatment System. After decay and/or treatment, individual batches of low-level waste are sampled and analyzed to confirm compliance with discharge limits, passed through a 5-micron filter, and discharged into the auxiliary saltwater cooling system.

2.2.1.3. Discharge Point 001E – Service Cooling Water System

This system provides OTC water for the Service Cooling Water System (a closed loop servicing pumps and other loads in the electric generation system) for each unit. When maintenance during an outage requires draining of the system (once or twice a year), approximately 11,000 gallons are drained. Infrequently, a feed and bleed maintenance event is performed, resulting in the gravity draining and refilling of the system three times, with approximately 33,000 total gallons discharged. This occurs on one unit at a time.

2.2.1.4. Discharge Point 001F – Turbine Building Sump

Floor drainage from plant system leaks and maintenance activities in the turbine building, buttress areas, other sumps, secondary systems, secondary systems chemistry laboratories, and firewater system maintenance and testing are collected in a turbine building collection sump prior to treatment. The effluent is either treated in an oily water separator or sent to the WHAT system (Discharge Point 001M), prior to discharge via a separate sump into the OTC conduit (Discharge Point 001). The facility operates two oily water separators. Separated oil is sent to an in-ground sludge sump or above-ground tank.

2.2.1.5. Discharge Point 001G – Make-Up Water System Waste Effluent

This discharge contains blowdown from the reverse osmosis systems and filter backwash (brine) from makeup water pretreatment and treatment systems, which are discharged to the OTC water conduit (Discharge Point 001) via the discharge sump. This wastewater contains filter backwash, concentrated solids, and treatment aids.

2.2.1.6. Discharge Point 001H – Condensate Demineralizer Regenerant

Waste regenerant solution from the steam-cycle condensate demineralizers is collected in regenerant waste tanks for neutralization and filtration and is discharged to the OTC water conduit (Discharge Point 001) via the discharge sump.

2.2.1.7. Discharge Point 001J – Condensate Pumps Discharge Header Overboard

During normal startup operations, and occasionally during power operations, condensate from the main condenser hot well will be periodically discharged to Discharge Point 001 to improve condensate quality in the steam cycle. This discharge is only used several times per year during unit startup following outages and is primarily used during unit startup operations.

2.2.1.8. Discharge Point 001L – Steam Generator Blowdown

This flow contains discharge from the blowdown of the steam generator and is discharged to Discharge Point 001.

2.2.1.9. Discharge Point 001M – Wastewater Holding and Treatment System (WHAT)

Water routed to the WHAT system may involve treatment by coagulation, settling, oil removal, neutralization, filtration, or chlorination and is discharged to 001.

2.2.1.10. Discharge Point 001N – Sanitary Wastewater Treatment System

Sanitary waste is treated in a package treatment facility and is intermittently discharged via gravity overflow to the SWRO system discharge (Discharge

Point 001P). During a discharge to 001P, a portion of the effluent could be discharged along with the intake screen wash water (Discharge Point 003).

2.2.1.11. Discharge Point 001P – Seawater Reverse Osmosis System (SWRO) Blowdown

Blowdown from the SWRO system contains concentrated seawater brine and filter backwash. Blowdown is normally discharged through the intake structure to the auxiliary seawater cooling system (Discharge Point 001B). When auxiliary seawater cooling system pumps are not operating, an alternate discharge path is to the intake screen wash outfall (Discharge Point 003). Treated domestic sanitary wastes (Discharge Point 001N) are discharged to the SWRO system blowdown in the event of a failure of both discharge pumps.

2.2.1.12. Discharge Point 001Q – Intake Structure Building Sumps Overboard

Drainage from within the intake structure includes the intake sump, intake OTC water systems releases, stored water releases, wash water, and firewater system releases and is collected in sumps. This combined flow is now normally discharged with the OTC water (Discharge 001). In the previous permit, this discharge was routed through Discharge 002 (which still exists as an alternative route).

2.2.2. Discharge Point 002 – Screen Wash Pumps Overboard

Discharge Point 002 is a de minimis discharge of excess seawater from the screen wash auxiliary supply header. Routine discharge is limited to valve leak-by when the system is in routine alignment. During very rare emergent plant conditions, significant discharge occurs when screen wash pump valves are placed in non-standard alignment, when the pressure control valve can be used to ensure the screen wash pumps do not over-pressurize auxiliary water supplies. This only occurs under emergent plant conditions for a limited time to restore normal plant equipment back into service. The Intake Structure Building Sumps Overboard (Discharge Point 001Q) can also be routed to Discharge Point 002 as an alternate discharge pathway. Under most present operating conditions, the 002 discharge is effectively redrawn into the intake by the operating cooling system. The discharge point is inside the breakwater, adjacent to the intake structure. Discharge Point 003 is characteristically similar to the discharge at Point 002 as most of the screen wash pumps overboard water discharges through Point 003.

2.2.3. Discharge Point 003 – Intake Screen Wash

Solid material from the ocean, such as kelp, is washed from the traveling screens at the intake structure and collected in a collection sump. Collected screen wash water and ocean debris is then pumped back to the ocean at a point located on the ocean side of the west breakwater. During high-energy storm and ocean swell events, excess kelp debris can overwhelm the screen wash collection trough or debris grinders and may accumulate in the screen wash collection sump or

Discharge Point 003 piping. This material may be gathered during such events in a roll-off bin and disposed of in a local landfill. The SWRO blowdown can also discharge at this point when the auxiliary seawater system pumps are not operating. Any stormwater in the vicinity of the intake structure system and the intake maintenance shop may be routed to Discharge Point 003 for discharge, so Point 003 is susceptible to contaminants transported from native rock and soil located immediately adjacent to, and elevated above, the location. Discharge Point 003 is characteristically similar to the discharge at Discharge Point 002.

2.2.4. Discharge Point 004 – SWRO System Discharge

Discharge Point 004 was formerly labeled as Biolab Discharge. The Biolab has been removed, and this discharge now comprises the SWRO system supply tank high level drain overflow and stormwater discharges. Seawater is pumped from the intake structure to the SWRO supply tank. Excess seawater goes out the tank high level overflow piping and the intermittent overflow discharges to riprap on the shoreline of Intake Cove. The stormwater drainage for a portion of the industrial site is collected in a large retention basin and, once filled, can spill and combine with the SWRO high-level drain overflow before entering Intake Cove. This normally only occurs during significant rainfall events. Stormwater at Discharge Point 004 has similar industrial activity to Discharge Points 005, 008, and 009, which are covered under the stormwater Industrial General Permit.

2.2.5. Discharge Point 016 – Biolab Seawater Supply Pump Valve Drain

Discharge Point 016 is a drain in the seawater supply valve box for removal of accumulated rainwater and seawater. Discharge would occur only when there is a failure with piping or valves contained within the box. This discharge point releases untreated seawater from the intake supply line along with collected rainwater following seasonal rain events; there is no interaction with plant process water or chemical inputs. Discharge is to Intake Cove. This discharge point retains its name from the previous Order, though it is now associated with the SWRO system. The naming convention “Biolab” will remain to keep consistency with operations and nomenclature in plant procedures and drawings.

2.2.6. Discharge Point 017 – SWRO System Blowdown Drain

A low-point valve located beside the intake structure access road allows the 8-inch SWRO system blowdown line to be drained for repair. The discharge is to Intake Cove. Only rare use of the drain during the lifetime of the system is expected. This discharge has not been operated in the last 10 years; however, continued Permit coverage of this discharge is needed to allow for potential SWRO brine line repairs in the future.

2.2.7. Discharge Point 022 – SWRO System Supply Line Drain

Discharge Point 022 is a bypass of supply lines for the reverse osmosis system. The only time the supply lines drain would be open to discharge to Intake Cove is when repairs or maintenance to the supply lines is needed. In these cases,

seawater that was pumped from the ocean to supply the SWRO system is released back from where it came. There is minimal interaction with plant process water or chemical inputs. The SWRO supply lines are alternated approximately monthly and the seawater in the top portion of the supply lines is gravity drained via the bypass lines for maintenance (biofouling control). Discharge Point 022 was not listed as a waste discharge location in the previous Order.

2.2.8. Discharge Point 026 – Main Circulating Water Pumps Backflow

Discharge Point 026 is a short-term, gravity-induced discharge out of the intake structure that occurs when a circulating water pump is shut down. Water that has been pumped from the intake structure to the main condensers will flow by gravity back down to the intake structure. Like Discharge Point 022, it is essentially seawater being returned from where it came, with minimal interaction with plant process water or chemical inputs. This only occurs during an unplanned power generating unit trip or during unit down-powers to support refueling outages, mid-cycle main circulating water conduit cleanings, or condenser cleanings during storm or tunnel biofouling cleaning events. This reversal of the OTC system cooling water intake takes only a few seconds. Chemical feed systems are secured prior to planned shut-downs of the OTC water pumps to prevent discharge of chemicals. Under most conditions, the discharge is effectively redrawn into the intake by the remaining OTC water pumps. Discharge Point 026 was not listed as a waste discharge location in the previous order. Discharge Point 026 occurs across the intake structure at each of the circulating water pump tunnels. Discharge Points 026 and 027 are roughly at the same location.

2.2.9. Discharge Point 027 – Screen Wash Collection Sump Overflow

The Screen Wash Collection Sump Overflow is a discharge that rarely occurs from a collection sump that fills up with seawater and ocean debris and overflows from an opening in the intake structure during extreme conditions. This occurs when screen wash inputs in the sump exceed the screen wash sump pump discharge capabilities. This occasionally happens during high swell storm events, which can carry excessive debris (e.g., kelp) into the intake traveling screens, requiring continuous operation of the screen wash system. This, in addition to ocean swell and tidal water, can lead to a large influx of seawater to the intake screen wash sump, which can overflow back to the intake when sump pumps cannot keep up. Discharge during this rare event is effectively redrawn immediately into the operating OTC water system. Discharge Point 027 effluent is characteristically similar to Discharge Point 003 effluent, with the only difference being that the infrequent, overflow water to Discharge Point 027 has less potential interaction with plant process water or chemical inputs than Discharge Point 003. Discharge 027 was not listed as a waste discharge location in the previous order. Discharge 027 occurs at the center of the structure between the two units' circulating water pump tunnels. Discharge Points 026 and 027 are roughly at the same location.

Table F-2. Facility Discharge Points

Discharge Point	Discharge Description	Frequency of Discharge	Average Flow (MGD)
001	Once-Through Cooling Water and Other In-Plant Wastewaters (Discharge Points 001B through 001Q below)	Continuous	2.50×10^{3}
001B	Auxiliary Seawater Cooling System	Continuous	3.48×10^{1}
001D	Liquid Radioactive Waste Treatment System	Intermittent	5.50×10^{-3}
001E	Service Cooling Water System	Intermittent	6.00×10^{-5}
001F	Turbine Buildup Sump	Intermittent	3.75×10^{-2}
001G	Makeup Water System Waste Effluent	Continuous	9.65×10^{-2}
001H	Condensate Demineralizer Regenerant	Intermittent	3.35×10^{-2}
001J	Condensate Pumps Discharge Header Overboard	Intermittent	5.65×10^{-3}
001L	Steam Generator Blowdown	Continuous	1.65×10^{-1}
001M	Wastewater Holding and Treatment System	Intermittent	1.25×10^{-1}
001N	Sanitary Wastewater Treatment System	Intermittent	1.55×10^{-2}
001P	SWRO System Blowdown	Continuous	7.95×10^{-1}
001Q (New)	Intake Structure Building Sumps Overboard	Continuous	7.20×10^{-2}
002	Screen Wash Pumps Overboard	Intermittent	3.28×10^{-2}
003	Intake Screen Wash Water	Intermittent	2.64×10^{0}
004	SWRO System Discharge	Intermittent	5.62×10^{-1}
016	Biolab Seawater Supply Pump Valve Drain	Intermittent	2.00×10^{-3}
017	SWRO System Blowdown Drain	Intermittent	4.00×10^{-3}
022 (New)	SWRO System Supply Lines Drain	Intermittent	1.65×10^{-2}
026 (New)	Main Circulating Water Pumps Backflow	Intermittent	3.00×10^{0}
027 (New)	Screen Wash System Collection Sump Overflow	Intermittent	7.22×10^{0}

As shown in Table F-2, the majority of Facility discharge is from Discharge Point 001, which is located in Diablo Cove of the Pacific Ocean. The discharge structure includes three weirs and horizontal platforms fitted with vertical impact blocks, which cause a cascading effect for dissipation of heat and hydraulic energy prior to discharge. The discharge structure has two 27.5-foot (8.4-meter) openings, each serving a single generator unit. Effluent flows from Discharge Point 001 discharge approximately 85 feet above the receiving water when the tide is at mean lower low water (MLLW).[8]

2.3. Summary of Existing Requirements and SMR Data

Effluent limitations contained in Order 90-09 for discharges from Discharge Points 001, 001D, 001F, 001G, 001H, 001I, 001J, 001K, 001L, 001M, 001N, 001P, 002, 003, 004, 005, 008, 009, 013, 014, 015, 016, and 017 (Monitoring Locations EFF-001, INT-001D, INT-001F, INT-001G, INT-001H, INT-001I, INT-001J, INT-001K, INT-001L, INT-001M, INT-001N, INT-001P, EFF-002, EFF-003, EFF-004, EFF-005,

[8] Mean lower low water is the average of the low water height of each tidal day observed over the national tidal datum epoch.

EFF-006, EFF-008, EFF-009, EFF-013, EFF-014, EFF-015, EFF-016, and EFF-017) and representative monitoring data from January 2020 through April 2025 are presented in Table F-3. As explained in section 4 of the Fact Sheet, there are 35 years of data in total since the NPDES permit was last reissued for this Facility. For the purposes of this Order, the last five years of data are considered representative and reflective of existing effluent and receiving water conditions. Accordingly, those last five years of data were used to calculate reasonable potential and determine effluent limitations (see, Section 4.3, *infra*). These last five years of monitoring data are summarized in Tables F-3 and F-4.

Table F-3. Historic Effluent Limitations and Monitoring Data – Discharge Point 001 (from January 1, 2020, to April 30, 2025)

Parameter	Units	6-Month Median Limit	Maximum Daily Limit	Instantaneous Maximum Limit	Highest 6-Month Median Discharge	Highest Daily Discharge	Highest Instantaneous Discharge
Flow	MGD	N/A[5]	N/A	2,760	N/A	N/A	2,588
Temperature	°F	N/A	22[1]	N/A	N/A	22	N/A
Temperature during Heat Treatment	°F	N/A	25[2]	50[3]	N/A	N/A	N/A
Arsenic, Total Recoverable	µg/L	30	150	400	1.35	1.35	1.35
Cadmium, Total Recoverable	µg/L	10	20	50	0.051	0.051	0.051
Hexavalent Chromium, Total Recoverable[4]	µg/L	10	40	100	1.25	9.7	9.7
Copper, Total Recoverable	µg/L	10	50	140	1.25	6.0	6.0
Lead, Total Recoverable	µg/L	10	40	100	0.058	0.058	0.058
Mercury, Total Recoverable	µg/L	0.2	0.8	2.0	0.00143	0.00143	0.00143
Nickel, Total Recoverable	µg/L	30	100	260	15	23.5	23.5
Silver, Total Recoverable	µg/L	2.9	13.6	35	0.016	0.016	0.016
Zinc, Total Recoverable	µg/L	70	380	990	7.4	8.7	8.7

Parameter	Units	6-Month Median Limit	Maximum Daily Limit	Instantaneous Maximum Limit	Highest 6-Month Median Discharge	Highest Daily Discharge	Highest Instantaneous Discharge
Cyanide, Total	µg/L	30	100	260	<10	<10	<10
Total Residual Chlorine	µg/L	N/A	N/A	200	N/A	N/A	61
Ammonia (as N)	µg/L	3,060	12,240	30,600	168	290	290
Toxicity Concentration	toxicity units (TU)	0.26	N/A	N/A	1.0	N/A	N/A
Phenolic Compounds, Non-Chlorinated	µg/L	150	610	1,530	<3.0	<3.0	<3.0
Chlorinated Phenolics	µg/L	10	20	50	<0.57	<0.57	<0.57

[1] Effluent limitation established as the maximum allowable difference between the daily average temperature of the intake seawater and the daily average temperature of the effluent.
[2] Effluent limitation established as the maximum allowable difference between the daily average temperature of the intake seawater and the daily average temperature of the effluent during heat treatment.
[3] Effluent limitation established as the maximum allowable difference at any time during heat treatment between the temperature of the intake seawater and the temperature of the effluent.
[4] The Discharger may, at its option, apply the effluent limitation for hexavalent chromium as total chromium.
[5] Not applicable due to no limit, and subsequently no monitoring.

Table F-4. Historic Effluent Limitations and Monitoring Data – Discharge Points 001D, 001F, 001G, 001H, 001I, 001J, 001K, 001L, 001M, 001N, 001P, 002, 003, 004, 005, 008, 009, 013, 014, 015, 016, and 017 (from January 1, 2020 to April 30, 2025)

Discharge Point	Parameter	Units	Average Monthly Limit	Maximum Daily Limit	Highest Average Monthly Discharge	Highest Daily Discharge
001D	TSS	mg/L	30	100	5.65	5.65
001D	Oil and Grease	mg/L	15	20	1.8	1.8

Discharge Point	Parameter	Units	Average Monthly Limit	Maximum Daily Limit	Highest Average Monthly Discharge	Highest Daily Discharge
001D	Copper, Total Recoverable	mg/L	N/A[2]	1.0	N/A	0.019
001D	Iron, Total Recoverable	mg/L	N/A	1.0	N/A	[1]
001F	TSS	mg/L	30	100	11	11
001F	Oil and Grease	mg/L	15	20	13	13
001F	Copper, Total Recoverable	mg/L	N/A	1.0	N/A	0.05
001F	Iron, Total Recoverable	mg/L	N/A	1.0	N/A	[1]
001G	TSS	mg/L	30	100	<2.0	<2.0
001G	Oil and Grease	mg/L	15	20	<1.4	<1.4
001H	TSS	mg/L	30	100	7.0	7.0
001H	Oil and Grease	mg/L	15	20	<1.4	<1.4
001I	TSS	mg/L	30	100	[1]	[1]
001I	Oil and Grease	mg/L	15	20	[1]	[1]
001I	Copper, Total Recoverable	mg/L	N/A	1.0	N/A	[1]
001I	Iron, Total Recoverable	mg/L	N/A	1.0	N/A	[1]
001J	TSS	mg/L	30	100	25	25
001J	Oil and Grease	mg/L	15	20	1.7	1.7
001K	TSS	mg/L	30	100	[1]	[1]
001K	Oil and Grease	mg/L	15	20	[1]	[1]
001L	TSS	mg/L	30	100	2.0	2.0
001L	Oil and Grease	mg/L	15	20	1.4	1.4
001L	Copper, Total Recoverable	mg/L	N/A	1.0	N/A	0.005
001L	Iron, Total Recoverable	mg/L	N/A	1.0	N/A	[1]
001M	TSS	mg/L	30	100	21	21
001M	Oil and Grease	mg/L	15	20	5.0	5.0
001M	Copper, Total Recoverable	mg/L	N/A	1.0	N/A	[1]
001M	Iron, Total Recoverable	mg/L	N/A	1.0	N/A	[1]
001N	TSS	mg/L	60[3]		24	
001N	Oil and Grease	mg/L	15[3]	20	21	21
001N	Settleable Solids	mL/L	1.0[3]	3.0	0.3	0.3
001P	TSS	mg/L	30	100	24	24

Discharge Point	Parameter	Units	Average Monthly Limit	Maximum Daily Limit	Highest Average Monthly Discharge	Highest Daily Discharge
001P	Oil and Grease	mg/L	15	20	<1.4	<1.4
002	TSS	mg/L	30	100	21	21
002	Oil and Grease	mg/L	15	20	1.4	1.4
003	Oil and Grease	mg/L	15	20	<1.4	<1.4
004	Oil and Grease	mg/L	15	20	<1.4	<1.4
005	Oil and Grease	mg/L	15	20	<1.4	<1.4
008	Oil and Grease	mg/L	15	20	2.5	2.5
009	Oil and Grease	mg/L	15	20	3.1	3.1
013	Oil and Grease	mg/L	15	20	1.5	1.5
014	Oil and Grease	mg/L	15	20	[1]	[1]
015	Oil and Grease	mg/L	15	20	11.5	11.5
016	Oil and Grease	mg/L	15	20	[1]	[1]
017	Oil and Grease	mg/L	15	20	[1]	[1]

[1] Data was unavailable in the Discharger's SMRs from January 2020 through May 2025.
[2] Not applicable due to no limit and subsequently no monitoring.
[3] Effluent limitation established as a 30-day average.

2.4. Compliance Summary

A detailed review of electronic self-monitoring reports, discharge monitoring reports, and violations documented in the CIWQS database was conducted as part of the development of this permit for the time period of January 1990 through December 2024. During this review, it was determined that certain data from January 1990 through March 1996 was missing because CIWQS only contained data from April 2010 and USEPA's integrated Compliance Information System (ICIS) database only contained data from March 1996. Because of the large amount of data associated with determining compliance over the time period of 1990-2024, only the past five years of compliance data is summarized below, because it is most relevant and reflective of current operations of the Facility. A summary of all violations that occurred from January 2020 through May 2025 is included in Table F-5 below.

Table F-5. Compliance Summary

Date	Discharge Point	Parameter	Violation Type	Reported Value	Permit Limitation	Units
11/16/2021[1]	001F	Oil and Grease	Limit Exceedance	23.6	20	mg/L
5/31/2024[1]	001P	pH, TSS	Deficient Reporting	N/A	N/A	N/A

[1] Determined during a review of submitted DMRs available in the USEPA's ICIS database.

2.5. Planned Changes

There are no planned changes for the Facility during the term of this Order.

3. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in this Order are based on the requirements and authorities described in this section.

3.1. Legal Authorities

This Order serves as WDRs pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the CWA and implementing regulations adopted by the USEPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as an NPDES permit authorizing the Discharger to discharge into waters of the United States at the discharge locations described in Table 1 subject to the WDRs in this Order.

3.2. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, found in Chapter 3 (commencing with section 21100) of Division 13 of the Public Resources Code. Additionally, this discharge in particular is exempt from CEQA pursuant 14 Public Resources Code sections 15301 (Existing Facilities) and 25548.2 subd. (b).

3.3. State and Federal Laws, Regulations, Policies, and Plans

3.3.1. Water Quality Control Plan

The Central Coast Water Board's *Water Quality Control Plan for the Central Coastal Basin* (hereinafter Basin Plan) designates beneficial uses, establishes WQOs, and contains implementation programs and policies to achieve those objectives for the Pacific Ocean. Requirements in this Order implement the Basin Plan.

Beneficial uses applicable to the Pacific Ocean from Point Buchon to Point San Luis are as follows:

Table F-6. Basin Plan Beneficial Uses

Discharge Points	Receiving Water Name	Beneficial Use(s)
001, 002, 003, 004, 016, 017, 022, 026, and 027	Pacific Ocean, Point Buchon to Point San Luis	Water Contact Recreation (REC-1) Non-contact Water Recreation (REC-2) Industrial Service Supply (IND) Navigation (NAV) Marine Habitat (MAR) Shellfish Harvesting (SHELL) Commercial and Sport Fishing (COMM) Wildlife Habitat (WILD)

3.3.2. Thermal Plan

The State Water Board adopted the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan) on January 7, 1971, and amended this plan on September 18, 1975. This plan contains temperature objectives for coastal waters and states that "elevated temperature waste discharges shall comply with limitations necessary to assure protection of beneficial uses." The Ocean Plan defines elevated temperature wastes as "liquid, solid, or gaseous material discharged at a temperature higher than the natural temperature of receiving water." Requirements of this Order implement the Thermal Plan.

3.3.3. Ocean Plan

The State Water Board adopted the Ocean Plan in 1972 and amended it in 1978, 1983, 1988, 1990, 1997, 2000, 2005, 2009, 2012, 2015, and 2018. The State Water Board adopted the latest amendment on August 7, 2018, and it became effective on February 4, 2019. The Ocean Plan is applicable, in its entirety, to point source discharges to the ocean. The Ocean Plan identifies applicable beneficial uses of ocean waters of the state to be protected as set forth below*:*

Table F-7. Ocean Plan Beneficial Uses

Discharge Points	Receiving Water	Beneficial Uses
001, 002, 003, 004, 016, 017, 022, 026, and 027	Pacific Ocean	Industrial water supply; water contact and non-contact recreation, including aesthetic enjoyment; navigation; commercial and sport fishing; mariculture; rare and endangered species; marine habitat; fish spawning and shellfish harvesting

To protect beneficial uses, the Ocean Plan establishes WQOs and a program of implementation. Requirements of this Order implement the Ocean Plan.

3.3.4. Antidegradation Policy

Federal regulations at 40 CFR section 131.12 require that state water quality standards include an antidegradation policy consistent with the federal antidegradation policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California*. Resolution 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified with specific findings. The Central Coast Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provisions of 40 CFR section 131.12 and State Water Board Resolution 68-16.

3.3.5. Anti-Backsliding Requirements

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 CFR section 122.44(l) restrict backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed.

3.3.6. Endangered Species Act Requirements

This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code, §§ 2050 to 2097) or the federal Endangered Species Act (16 U.S.C.A. §§ 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state, including protecting rare and endangered species. The Discharger is responsible for meeting all requirements of the applicable endangered species act.

3.3.7. Sewage Sludge and Biosolids

This Order does not authorize any act that results in violation of requirements administered by USEPA to implement 40 CFR part 503, *Standards for the Use or Disposal of Sewage Sludge*. These standards regulate the final use and disposal of sewage sludge that is generated during the treatment of domestic sewage in a municipal wastewater treatment facility. Biosolids are excluded from regulation under this permit per 40 CFR 503.6 (d).

3.3.8. Once-Through Cooling Water Policy

CWA section 316(b) requires that the location, design, construction, and capacity of cooling water intake structures reflect the BTA for minimizing adverse environmental impact. Section 316(b) is implemented through NPDES permits. The US EPA promulgated a final rule for existing facilities on August 15, 2014 (79 FR 48300). Per 40 CFR 125.90(c), states may implement their own program to

address cooling water withdrawals, so long as it is more stringent than the federal requirements.[9]

On May 4, 2010, the State Water Board adopted the OTC Policy. The administrative record for the OTC Policy was approved by the Office of Administrative Law (OAL) on September 27, 2010, and the Policy became effective on October 1, 2010. The OTC Policy establishes technology-based standards to implement federal CWA section 316(b) and reduce the harmful effects associated with cooling water intake structures on marine and estuarine life. The OTC Policy applies to existing power plants that currently have the ability to withdraw water from the state's coastal and estuarine waters using a single-pass system, also known as once-through cooling. Closed-cycle wet cooling has been selected as the BTA, making the OTC Policy more stringent than federal requirements.

The Policy requires compliance under two alternatives:

- Track 1, where an owner or operator of an existing power plant must reduce intake flow rate at each unit, at a minimum, to a level commensurate with that which can be attained by a closed-cycle wet cooling system. A minimum 93 percent reduction in intake flow rate for each unit is required for Track 1 compliance, compared to the unit's design intake flow rate. The through-screen intake velocity must not exceed 0.5 foot per second. The installation of closed-cycle dry cooling systems meets the intent and minimum reduction requirements of this compliance alternative.
- Track 2, where an owner or operator of an existing power plant demonstrates to the State Water Board's satisfaction that compliance with Track 1 is not feasible, the owner or operator of an existing power plant must reduce impingement mortality and entrainment of marine life for the facility, on a unit-by-unit basis, to a comparable level to that which would be achieved under Track 1, using operational or structural controls, or both.

As discussed in the OTC Policy, nuclear power plants face unique challenges in complying with the OTC Policy. As a result, the State Water Board may establish site-specific requirements for these facilities. The OTC Policy requires nuclear power plants to conduct special studies to investigate alternatives to meet the requirements of the OTC Policy, including the costs for these alternatives. The OTC Policy established a schedule for compliance by December 31, 2024, for all existing facilities.

On August 15, 2023, the OTC Policy was amended, extending the OTC policy compliance date for Diablo Canyon Units 1 and 2 to October 31, 2030, consistent with the compliance date extensions that were approved through Senate Bill 846 in September 2022.

The OTC Policy requires PG&E to implement measures to mitigate the interim impingement and entrainment impacts resulting from the cooling water intake

[9] The OTC Policy is compliant with Section 316(b) of the CWA and 40 CFR 125.90(c).

structure, continuing up to and until PG&E achieves final compliance. See further details in Fact Sheet section 6.2.6.1.5.2

As discussed in section 6.2.6.1 of this Fact Sheet, special provisions and other requirements have been established in this Order to satisfy CWA section 316(b) and the state OTC Policy.

3.4. Impaired Water Bodies on the CWA Section 303(d) List

CWA section 303(d) requires states to identify specific waterbodies where water quality-based standards are not expected to be met after implementation of technology-based effluent limitations on point sources. For all 303(d)-listed water bodies and pollutants, the Central Coast Water Board must develop and implement total maximum daily loads (TMDLs) that specify waste load allocations for point sources and load allocations for non-point sources.

The *2024 Integrated Report for Clean Water Act 303(d) List and 305(b) Report* was partially approved by USEPA on December 13, 2024, and is the most recent integrated report. The Pacific Ocean in the vicinity of the Facility discharge is identified in the 2024 303(d) list as impaired for mercury. To date, no TMDLs have been developed for waterbodies that are influenced by discharges from the Facility.

3.5. Other Plans, Polices and Regulations

3.5.1. Discharges of Stormwater

State Water Resources Control Board Order WQ 2014-0057-DWQ, as amended by Order WQ 2015-0122-DWQ & Order WQ 2018-0028-DWQ, *General Permit for Storm Water Discharges Associated with Industrial Activities*, NPDES Order CAS000001 (Industrial General Permit), is applicable to stormwater discharges associated with industrial activities. On July 8, 2003, the State Water Board approved the Discharger's Notice of Intent (NOI) to comply with the terms of the Industrial General Permit to discharge under the Industrial General Permit. Stormwater discharges that flow via yard drains and other stormwater collection systems from the Facility into Discharge Points 003 through 015, 018, 020, 021, and 023 through 025 are regulated under the Industrial General Permit. This Order does not permit any discharges through Discharge Points 005-015, 018, 020, 021, and 023-025, but does permit some other non-stormwater industrial discharges through Discharge Points 003 and 004. The Discharger will revise the Facility's stormwater pollution prevention plan to be consistent with discharges covered and not covered under this Order.

3.5.2. Environmental Justice

When issuing or reissuing individual WDRs or waivers of WDRs that regulate an activity or a facility that may impact a disadvantaged or tribal community and that includes a time schedule in accordance with subdivision (c) of Water Code section 13263 for achieving an applicable WQO, an alternative compliance path that allows time to come into compliance with WQOs, or a water quality variance,

the Central Coast Water Board shall make a finding on potential environmental justice, tribal impact, and racial equity considerations (Water Code § 13149.2, effective Jan. 1, 2023). Water Code section 189.7 requires the Central Coast Water Board to conduct outreach in disadvantaged and/or tribal communities when adopting individual WDRs. In accordance with the State Water Board's efforts to advance racial equity, the Central Coast Water Board is also committed to developing and implementing policies and programs to advance racial equity and environmental justice so that race can no longer be used to predict life outcomes, and outcomes for all groups are improved.

In support of environmental justice principles, including but not limited to Water Code sections 189.7 and 13149.2 requirements, staff used the California Office of Environmental Health Hazard Assessment CalEviroScreen tool to develop a relative score of the Facility's and nearby community's environmental effects, exposure, sensitivity of the population, and socioeconomic factors. Using this tool, staff determined that the overall score of the facility and nearby community of the 22nd percentile or lower for these factors when compared to other areas of California. Expanding upon the 22nd-percentile score, the census tract that includes the facility and nearest community, Avila Beach, scored in the 8th percentile for population characteristics but 81st percentile for pollution burden. Factors influencing the pollution burden score include solid waste sites, impaired waters, hazardous waste sites, groundwater threats, drinking water contaminants and cleanup sites. Of these factors, potential threats to groundwater pollution, hazardous waste and activities related to cleanup sites are applicable to the Facility's operations.

The facility treats and stores hazardous wastes and hazardous waste with low levels of radioactivity (mixed waste) as permitted through the California Department of Toxic Substances Control Hazardous Waste Facility Permit. The facility does not dispose of hazardous waste or mixed waste onsite nor does it receive waste generated outside of the facility's boundary.[10]

The facility also uses liquid, gaseous and solid waste processing systems to collect and treat, as needed, radioactive materials that are produced as a byproduct of plant operations. Radioactive materials in liquid and gaseous effluents are reduced to levels as low as reasonably achievable. Spent nuclear fuel and other radioactive waste storage are regulated by the United States Nuclear Regulatory Commission licensure.[11]

This permit does not directly regulate the storage of hazardous wastes and contains prohibitions for the discharge of hazardous wastes including high levels of radioactive wastes into waters of the United States.

Upon review of readily available information, including that set forth in section 3.5.5, *supra*, the Central Coast Water Board finds that this Order regulates a

[10] Department of Toxic Substances Control EviroStor Website DCPP Permit: https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=80001686
[11] US Nuclear Regulatory Commission License Application for DCPP: https://www.nrc.gov/docs/ML2331/ML23311A154.pdf

discharge that does not disproportionately impact the water quality of an economically disadvantaged community or a tribal community. The Central Coast Water Board has conducted outreach consistent with Water Code section 189.7 by reaching out to surrounding communities and tribal communities about this Order. Additionally, the Central Coast Water Board has considered any environmental justice concerns within the Central Coast Water Board's authority, in accordance with efforts to advance racial equity. This Order requires the Discharger to meet water quality standards to protect public health and the environment, thereby benefiting all persons and communities within the Central Coast Region. The Discharger may use existing data and evaluations for full or partial compliance with this requirement.

3.5.3. Response to Climate Change

Climate change refers to observed changes in regional weather patterns such as temperature, precipitation, and storm frequency and size. At the local scale, within urbanized areas, climate change may directly impact groundwater and surface water supply; drainage, flooding, and erosion patterns; and ecosystems and habitat. This shift in climate, combined with California's growing population, has increased reliance on pumping, conveying, treating, and heating water, increasing the water sector's greenhouse gas emissions. State Water Board Resolution 2017-0012, *Comprehensive Response to Climate Change*, requires a proactive response to climate change in all California Water Board actions, with the intent to embed climate change consideration into all programs and activities.

The Facility is a nuclear driven steam electric generation power plant that produces over 8% of the State of California's electrical demand.[12] Senate Bill 846 (2022)[13] was passed with the intent to extend the Facility's operations to assist with the State of California's transition to renewable energy sources and a reduction in greenhouse gas emissions.

The Facility's structures are built on a coastal terrace approximately 85 feet above mean sea level and are not at immediate risk of impacts of flooding or saltwater intrusion associated with sea level rise. The Facility continues to use the appropriate San Luis Obispo County 2007 Plan Policy on guidance on addressing sea level rise and conducts ongoing annual assessments and monitoring of erosion are required as part of the operating license.

Aligning with Resolution 2017-0012, this Order permits the discharge of nuclear driven steam energy cooling water to allow Diablo Canyon to continue to provide a low-carbon alternative energy supply to meet the State of California's energy needs, support energy demand response, and increase energy reliability during

[12] California Energy Commission, *CEC Determines Diablo Canyon Power Plant Needed to Support Grid Reliability,* February 28, 2023 https://www.energy.ca.gov/news/2023-02/cec-determines-diablo-canyon-power-plant-needed-support-grid-reliability
[13] Senate Bill 846, https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220SB846

its transition to clean energy.[14] This Order also requires the Discharger to prepare a climate change response hazards and vulnerabilities plan to address climate change impacts and hazards associated with the continued operation of the Facility. The Discharger may use existing data and evaluations for compliance with this requirement.

3.5.4. Human Right to Water

Water Code section 106.3 established the policy that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. On January 26, 2017, the Central Coast Water Board adopted Environmental Justice and the Human Right to Water Resolution R3-2017-0004, which adopts the human right to water as a core value and affirms the realization of the human right to water and protecting human health as the Central Coast Water Board's top priorities. Consistent with the Water Code and Resolution R3-2017-0004, this Order promotes actions that advance the human right to water and discourages actions that delay or impede opportunities for communities to secure safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.

This Order does not authorize the discharge of wastes to waters that serve as a primary source of drinking water or waters that are designated with Municipal or Domestic Water Supply beneficial uses as described in the Basin Plan. Therefore, this Order is consistent with the Water Code and Resolution R3-2017-004.

3.5.5 Disadvantaged Community Status

Environmental Justice principles call for the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income in the development, adoption, implementation, and enforcement of all environmental laws, regulations, and policies that affect every community's natural resources and the places people live, work, play, and learn. The Central Coast Water Board implements regulatory activities and water quality projects in a manner that ensures the fair treatment of all people, including underrepresented communities. Underrepresented communities include but are not limited to disadvantaged communities (DACs), severely disadvantaged communities (SDACs), economically distressed areas (EDAs), tribes, environmentally disadvantaged communities (EnvDACs), and members of fringe communities. Furthermore, the Central Coast Water Board is committed to providing all stakeholders the opportunity to participate in the public process and provide meaningful input to decisions that affect communities. To meet environmental justice principles, staff has evaluated the disadvantaged community status for the Discharger.

The Central Coast Water Board finds that the Facility is located on an isolated 750 acres of private land and that the nearest community, Avila Beach, is not considered a disadvantaged community based on California Department of Water

[14] California's 100 Percent Clean Energy Act of 2018 https://codes.findlaw.com/ca/public-utilities-code/puc-sect-454-53/

Resources Disadvantaged Community Mapping Tool. The tool defines a DAC as a census block with a median household income between $47,203 and $62,938 and an SDAC as a census block with a median household income below $47,203. Using 2020 census data, the mapping tool identifies the areas at and downstream of the Facility as not disadvantaged.

4. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE PROHIBITIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in the Code of Federal Regulations: 40 CFR section 122.44(a) requires that permits include applicable technology-based limitations and standards and 40 CFR section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

4.1. Discharge Prohibitions

4.1.1. Discharge Prohibitions

This Order implements discharge prohibitions that are applicable under federal statutes and regulations and the Ocean Plan as described below.

4.1.1.1. Discharge Prohibition 3.1

Discharges in a manner or location, except as described by this Order, are prohibited. This prohibition is consistent with the CWA section 402 prohibition against discharges of pollutants except in compliance with the permit requirements, effluent limitations, and other enumerated provisions of this Order.

4.1.1.2. Discharge Prohibition 3.2

Discharge of waste not specifically authorized by this Order or other orders in which the Discharger is enrolled, such as the Industrial General Permit, is prohibited. Because limitations and conditions of this Order have been prepared using specific information provided by the Discharger, the limitations and conditions of this Order do not adequately address waste streams not contemplated during drafting of this Order. To prevent the discharge of unanticipated waste streams, this Order prohibits the discharge of any waste that was not described by the Central Coast Water Board during the process of permit issuance. This prohibition is consistent with the CWA section 402 prohibition against discharges of pollutants except in compliance with the permit requirements, effluent limitations, and other enumerated provisions of this Order.

4.1.1.3. Discharge Prohibition 3.3

Discharges of radiological, chemical, or biological warfare agents or high-level radioactive waste to the Ocean are prohibited. This prohibition is consistent with discharge prohibitions in section III.I.1.a of the Ocean Plan.

4.1.1.4. Discharge Prohibition 3.4

The discharge of radioactive waste that causes degradation to marine life is prohibited. This prohibition was established in lieu of receiving water limitations in section II.B.2.F.1 of the Ocean Plan and section C.13 of Order 90-09.

4.1.1.5. Discharge Prohibition 3.5

Federal law prohibits the discharge of sludge by pipeline to the Ocean. The discharge of municipal or industrial waste sludge directly to the Ocean or into a waste stream that discharges to the Ocean is prohibited. The discharge of sludge digester supernatant, without further treatment, directly to the Ocean or to a waste stream that discharges to the Ocean, is prohibited. This prohibition is consistent with discharge prohibitions in section III.I.3.a of the Ocean Plan.

4.1.1.6. Discharge Prohibition 3.6

Overflows and bypasses prohibited. The discharge of untreated or partially treated wastewater from the Discharger's collection, treatment, or disposal facilities represents an unauthorized bypass pursuant to 40 CFR section 122.41(m) or an unauthorized discharge that poses a threat to human health and/or aquatic life and, therefore, is explicitly prohibited by this Order. This prohibition is consistent with discharge prohibitions in section III.I.4.a of the Ocean Plan.

4.1.1.7. Discharge Prohibition 3.7

Discharges of trash or the deposition of trash where it may be discharged to surface waters of the State is prohibited. This prohibition is consistent with discharge prohibitions in section III.I.6 of the Ocean Plan and is retained from Order 90-09.

4.1.1.8. Discharge Prohibition 3.8

Discharge of untreated or partially treated sanitary wastes and discharge or septic effluent is prohibited. This prohibition is retained from Order 90-09 to ensure that untreated or partially treated sanitary wastes associated with Discharge Point 001N are not discharged.

4.1.1.9. Discharge Prohibition 3.9.

The discharge of polychlorinated biphenyls (PCBs) is prohibited. This prohibition is based on effluent limitation guidelines at 40 CFR section 423.12(b)(2) and is retained from Order 90-09.

4.1.1.10. Discharge Prohibition 3.10.

The discharge of oil or any residual products of petroleum to the waters of the state, except in accordance with waste discharge requirements or other provisions of Division 7 of the California Water Code, is prohibited. This prohibition was added to be consistent with Prohibition 5.4 of the Basin Plan.

4.2. Technology-Based Effluent Limitations

4.2.1. Scope and Authority

Section 301(b) of the CWA and implementing USEPA permit regulations at 40 CFR section 122.44 require that permits include conditions meeting applicable technology-based requirements at a minimum and any more stringent effluent limitations necessary to meet applicable water quality standards.

The CWA requires that technology-based effluent limitations be established based on several levels of controls:

4.2.1.1. Best practicable treatment control technology (BPT) represents the average of the best existing performance by well-operated facilities within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants.

4.2.1.2. Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and non-conventional pollutants.

4.2.1.3. Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering a two-part reasonableness test. The first test compares the relationship between the costs of attaining a reduction in effluent discharge and the resulting benefits. The second test examines the cost and level of reduction of pollutants from the discharge from publicly owned treatment works (POTWs) to the cost and level of reduction of such pollutants from a class or category of industrial sources. Effluent limitations must be reasonable under both tests.

4.2.1.4. New source performance standards (NSPS) represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires USEPA to develop effluent limitation guidelines (ELGs) and standards representing application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and 40 CFR section 125.3 authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern. Where BPJ is used, the Central Coast Water Board must consider specific factors outlined in 40 CFR section 125.3.

4.2.2. Internal Waste Streams

Section 301(b) of the CWA and USEPA permit regulations at 40 CFR section 122.45 (h)(2) allow for limitations or standards for discharges of pollutants to be imposed on internal waste streams prior to combining at the point of discharge if there are exceptional circumstances that make such limitations necessary. Examples of such circumstances include when the wastes at point of discharge are so diluted as to make the monitoring impracticable and when the interferences among pollutants at the point of discharge would make detection or analysis impracticable. As described in section 2.2 of this Fact sheet, Discharge Point 001 is composed of a significant amount of once-through cooling water mixed with smaller volumes of internal waste streams prior to discharge at Discharge Point 001. The dilution of these internal waste streams with once-through cooling water would make the monitoring of internal discharges impractical because the laboratory analysis for these pollutants would likely result in non-detects in a combined waste stream sample and thus would not provide a method of determining compliance with each applicable technology based effluent limits applied to internal waste streams. Therefore, where technology based effluent limits have established for internal waste streams, they are applicable to each individual waste streams prior to mixing with once-through cooling water.

4.2.3. Applicable Technology-Based Effluent Limitations

4.2.3.1. Applicable ELGs from 40 CFR Part 423

Pursuant to CWA section 306(b)(1)(B), USEPA has established standards of performance (technology-based limitations and standards) for steam electric power plants at 40 CFR part 423, *Effluent Limitations Guidelines, Pretreatment Standards, and New Source Performance Standards for the Steam Electric Power Generating Point Source Category*. These regulations apply to the Facility as “an establishment primarily engaged in the generation of electricity for distribution and sale which results primarily from a process utilizing nuclear fuel in conjunction with a thermal cycle employing the steam water system as the thermodynamic medium” (40 CFR § 423.10). The Facility is considered an “existing facility” and is not subject to NSPS. Therefore, this Order establishes effluent limitations based on BPT and BAT standards of performance described in sections 4.2.1.1.1 and 4.2.1.1.2 of this Fact Sheet. The ELGs at 40 CFR part 423 do not include standards of performance based on BCT.

4.2.3.1.1. Standards of Performance based on BPT

4.2.3.1.1.1. The pH of all discharges, except once-through cooling water, shall be within the range of 6.0 to 9.0 standard units. [40 CFR § 423.12(b)(1)]

4.2.3.1.1.2. The quantity of pollutants discharged from low volume waste sources shall not exceed the quantity determined by multiplying the flow of low volume waste sources times the concentration listed in Table F-8 below. [40 CFR § 423.12(b)(3)] Low volume wastes are defined as those wastewater sources

for which specific limitations are not established by the ELGs at 40 CFR part 423.

Table F-8. BPT ELGs for Low Volume Wastes

Parameter	Units	30-Day Average	1-Day Maximum
TSS	mg/L	30	100
Oil and Grease	mg/L	15	20

4.2.3.1.1.3. The quantity of pollutants discharged in metal cleaning wastes shall not exceed the quantity determined by multiplying the flow of metal cleaning wastes times the concentration listed in Table F-9 below. [40 CFR § 423.12(b)(5)]

Table F-9. BPT ELGs for Metal Cleaning Wastes

Parameter		Units	30-Day Average	1-Day Maximum
TSS		mg/L	30	100
Oil and Grease		mg/L	15	20
Copper, Total Recoverable		mg/L	1.0	1.0
Iron, Total Recoverable		mg/L	1.0	1.0

4.2.3.1.1.4. The quantity of pollutants discharged in once-through cooling water shall not exceed the quantity determined by multiplying the flow of once-through cooling water times the concentration listed in Table F-10 below. [40 CFR § 423.12(b)(6)]

Table F-10. BPT ELGs for Once-Through Cooling Water

Parameter	Units	Average	Maximum
Free Available Chlorine	mg/L	0.2	0.5

4.2.3.1.1.5. Neither free available chlorine nor total residual chlorine may be discharged from any unit for more than two hours in any one day and not more than one unit in any plant may discharge free available or total residual chlorine at any one time unless the Discharger can demonstrate to the Central Coast Water Board that the units in a particular location cannot operate at or below this level or chlorination. [40 CFR § 423.12(b)(8)]

4.2.3.1.2. Standards of Performance based on BAT

4.2.3.1.2.1. For any plant with a total rated electric generating capacity of 25 MW or more, the quantity of pollutants discharged in once-through cooling water from each discharge shall not exceed the quantity determined by multiplying the flow of once-through cooling water times the concentration listed in Table F-11 below. [40 CFR § 423.13(b)(1)]

Table F-11. BAT ELGs for Once-Through Cooling Water

Parameter	Units	Maximum
Total Residual Chlorine	mg/L	0.2

4.2.3.1.2.2. Total residual chlorine may not be discharged from any single generating unit for more than two hours per day unless the Discharger demonstrates to the Central Coast Water Board that discharges for more than two hours is required for macroinvertebrate control. Simultaneous multi-unit chlorination is permitted. [40 CFR § 423.13(b)(2)]

4.2.3.1.2.3. The quantity of pollutants discharged in chemical metal cleaning wastes shall not exceed the quantity determined by multiplying the flow of chemical metal cleaning wastes times the concentration listed in Table F-12 below. [40 CFR § 423.13(e)]

Table F-12. BAT ELGs for Chemical Metal Cleaning Wastes

Parameter	Units	30-Day Average	1-Day Maximum
Copper, Total Recoverable	mg/L	1.0	1.0
Iron, Total Recoverable	mg/L	1.0	1.0

4.2.3.2. Applicable Secondary Treatment Standards based on 40 CFR Part 125.3

Regulations promulgated in 40 CFR section 125.3(a)(1) require technology-based effluent limitations for municipal dischargers to be placed in NPDES permits based on Secondary Treatment Standards or Equivalent to Secondary Treatment Standards.

The Federal Water Pollution Control Act Amendments of 1972 (PL 92-500) established the minimum performance requirements for POTWs [defined in section 304(d)(1)]. Section 301(b)(1)(B) of the CWA requires that such treatment works must, as a minimum, meet effluent limitations based on secondary treatment as defined by the USEPA Administrator.

Based on this statutory requirement, USEPA developed secondary treatment regulations, which are specified in 40 CFR part 133. These technology-based regulations apply to all municipal wastewater treatment plants and identify the minimum level of effluent quality attainable by secondary treatment in terms of BOD, TSS, and pH.

The Facility includes a privately owned treatment works that discharges treated domestic wastewater at Discharge Point 001N. Therefore, technology-based effluent limitations for the portion of the Facility's waste stream that include the wastewater were developed on a case-by-case basis as described in section 4.2.1 above. The treatment technology used at the Facility for domestic wastewater is the same as providing secondary treatment, and therefore the secondary treatment requirements apply and are appropriate and achievable. After considering the appropriate technology and other requirements, the Central Coast Water Board has determined that this part of the Facility has

functions similar to a wastewater treatment plant and therefore has applied BPJ-based effluent limits that mimic the secondary treatment requirements in Table F-13 below at Discharge Point 001N.

Table F-13. Secondary Treatment Standards

Parameter	Units	Monthly Average	Weekly Average	Instantaneous Minimum	Instantaneous Maximum
BOD_5[1]	mg/L	30	45		
TSS[1]	mg/L	30	45		
pH	standard units			6.0	9.0

[1] The average monthly percent removal shall not be less than 85 percent.

4.2.4. Summary of Technology-Based Effluent Limitations (TBELs)

The Facility discharges once-through cooling water to the Pacific Ocean via Discharge Point 001. The total flow volume to the receiving water through Discharge Point 001 is a combination of once-through cooling water and in-plant waste streams that consist of low-volume waste source wastewater and metal cleaning source wastewater, as defined in 40 CFR part 423. 40 CFR sections 423.12(b)(13) and 423.13(h) state that in the event that waste streams from various sources are combined for treatment or discharge, the quantity of each pollutant or pollutant property shall not exceed the limitations specified. To ensure that the discharge from each individual waste stream is in compliance with 40 CFR part 423, and pursuant to 40 CFR 122.45 (h)(2) effluent limitations, with the exception of pH as discussed below in section 4.2.3.2, have been established at the discharge point of each waste stream before commingling with other waste streams and being discharged through Discharge Point 001.[15]

Federal regulations at 40 CFR sections 423.12(b)(11) and 423.13(g) specify that, at the permitting authority's discretion, effluent limitations may be expressed as concentration-based limitations instead of the mass-based limitations otherwise specified. Consistent with Order 90-09, technology-based effluent limitations in this Order are expressed as concentration-based limitations.

The technology-based effluent limitations below are established in this Order.

4.2.4.1. Flow

The discharge of waste at Discharge Point 001 shall not exceed 2,760 MGD. This limit is retained from Order 90-09.

4.2.4.2. pH

4.2.4.2.1. Discharge Point 001

[15] See discussion in Fact Sheet Section 2.2.1 & 4.2.2 *et seq.*, *supra*.

Pursuant to 40 CFR section 423.12(b)(1), TBELs for pH are not applicable to Discharge Point 001, because it is dominated by once-through cooling water.

4.2.4.2.2. Internal Waste Streams

Pursuant to 40 CFR section 423.12(b)(13), TBELs for pH typically apply to internal waste streams. However, NRC safety regulations require the discharger to maintain specific water chemistry conditions for pipe corrosion control for some in-plant waste streams that prevent the TBELs for pH listed in Section 4.2.3.2. from being met. In accordance with 40 CFR section 423.12(a), the Central Coast Water Board is granted discretion to alter the effluent limits as dictated by this fundamentally different factor. The Central Coast Water Board also finds that any non-neutral pH is chemically neutralized before discharge via comingling with once-through cooling seawater, without the need for additional treatment, and thus water remains protected (see, section 4.3.5 of the Fact Sheet). The Central Coast Water Board therefore removes pH limitations at internal waste streams.

4.2.4.2.3. Other External Discharge Points

All other permitted discharges (Discharge Points 002, 003, 004, 016, 017, 022, 026, and 027) are subject to TBELs for pH of between 6.0 and 9.0 standard units as listed in at 40 CFR section 423.12(b)(1).

4.2.4.3. Once-Through Cooling Water Sources

Section 423.12(b)(6) of 40 CFR establishes standards of performance for free available chlorine based on BPT for steam electric power generating facilities with once-through cooling water. Section 423.13(b)(1) of 40 CFR establishes standards of performance for total residual chlorine based on BAT for any steam electric power generating facility with a total rated electric generating capacity of 25 MW or more with once-through cooling water.

The Facility is a steam electric power generating facility and has a generating capacity of 2,240 MW; therefore, the more stringent standards of performance apply. As defined in USEPA's 1974 *Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the Steam Electric Power Generating Point Source Category* (Development Document), total residual chlorine is the sum of free available chlorine and combined residual chlorine. Therefore, the maximum concentration for total residual chlorine, 0.2 mg/L, is more stringent than the maximum concentration for free available chlorine, 0.5 mg/L. Consistent with 40 CFR part 423, the effluent limitation for total residual chlorine is retained from Order 90-09 as shown in the table below.

Table F-14. Technology-Based Effluent Limitations for Once-Through Cooling Water at Discharge Point 001

Parameter	Units	Instantaneous Maximum
Total Residual Chlorine	mg/L	0.2

In its ROWD, the Discharger stated that the State Summer Peak Period Readiness program combined with environmental conditions in late spring and summer have increased the level of biofouling at the Facility and the complexities of biofouling treatment. The summer peak period runs from June 1 through September 30, or as announced by governing authorities, when reliable operation is needed to support energy shortages caused by persistent high heat, equipment failure, weather events, or natural disasters such as wildfires. During the summer peak period, the California Independent System Operator will issue Restricted Maintenance Operations alerts, which instruct utilities to avoid taking grid assets offline for maintenance to ensure all generators and transmission lines are available when high loads are anticipated. This typically occurs during the Facility's mid-cycle cleaning timeframe, which also coincides with the greatest need for Facility baseload power generation. Lower coastal seawater surface temperatures influenced by upwelling conditions that occur in late spring and summer along the coast in the area of the Facility are also correlated with increased rates of biofouling. The Facility does not use heat treatment for biofouling and relies solely on chlorine injections for reduction of biofouling in the intake conduits.

Section 423.13(b)(2) of 40 CFR states that total residual chlorine may not be discharged from any single generating unit for more than two hours in any one day unless it can be demonstrated to the permitting authority that more than two hours is required for macroinvertebrate control. The Central Coast Water Board has determined based on the information reported in the ROWD that the operational challenges associated with biofouling at the Facility and the baseload power generation needs of the State during the Summer Peak Periods described above demonstrate the need for additional chlorine injection time for macroinvertebrate control. Therefore, in addition to the instantaneous maximum effluent limitation in Table F-14 above, total residual chlorine may not be discharged from any single generating unit for more than four hours per day. At least 30 minutes must separate the chlorine discharge from each condenser unit.

4.2.4.4. Low Volume Waste Sources.[16]

[16] 40 CFR part 423 defines low volume waste sources as wastes taken collectively as if from one source and wastewater from all sources except those for which specific limitations or standards are otherwise established in 40 CFR part 423. Low volume waste sources include, but are not limited to, wastewaters from ion exchange water treatment systems, water treatment evaporator blowdown, laboratory and sampling streams, boiler blowdown, floor drains, cooling tower basin cleaning wastes, recirculating house service water systems, and wet scrubber air pollution control systems whose primary purpose is

Section 423.12(b)(3) of 40 CFR establishes standards of performance based on BPT for low volume wastes, defined as wastewater from all sources except those otherwise established in 40 CFR part 423. The effluent limitations listed in Table F-15 below are applicable to internal Discharge Points 001D, 001F, 001G, 001H, 001J, 001L, 001M, 001P, 001Q, 002, 003, 004, 016, 017, 022, 026, and 027.

Table F-15. Technology-Based Effluent Limitations for Low Volume Wastes at Internal Discharge Points 001D, 001F, 001G, 001H, 001J, 001L, 001M, 001P, 001Q, 002, 003, 004, 016, 017, 022, 026, and 027

Parameter	Units	30-Day Average	Maximum Daily
TSS	mg/L	30	100
Oil and Grease	mg/L	15	20

4.2.4.5. Metal Cleaning Waste Sources

40 CFR section 423.12(b)(5) establishes standards of performance based on BPT for metal cleaning wastes, defined as any wastewater resulting from cleaning any metal process equipment including, but not limited to, boiler tube cleaning, boiler fireside cleaning, and air preheater cleaning. This also includes chemical metal cleaning wastes, which are defined as any wastewater resulting from the cleaning of any metal process equipment with chemical compounds, and are regulated by 40 CFR section 423.13(e).

According to the USEPA Development Document, wastewater from steam electric power plants is produced intermittently, on a regular basis, by water treatment operations that utilize a cleaning or regenerative step as part of their cycle. The efficiency of a power plant depends largely on the cleanliness of its heat transfer surfaces. Internal cleaning of this equipment usually requires chemicals to remove deposits formed on surfaces. In the ROWD, the Discharger identified internal Discharge Points 001D, 001F, 001H, 001J, 001L, and 001M as wastewater occasionally resulting from metal cleaning activities. Table F-16 below lists the effluent limitations applicable to these discharge points when metal cleaning operations occur. When metal cleaning operations are not occurring, effluent limitations listed in Table F-15 above are applicable for these discharge points. These limits are established are retained from Order 90-09 for internal Discharge Points 001D, 001F, 001L, and 001M and are newly established for Discharge Points 001H and 001J.

particulate removal. Sanitary wastes, air conditioning wastes, and wastewater from carbon capture or sequestration systems are not included in this definition.

Table F-16. Technology-Based Effluent Limitations for Metal Cleaning Wastes at Internal Discharge Points 001D, 001F, 001G, 001H, 001J, 001L, and 001M

Parameter	Units	30-Day Average	Maximum Daily
TSS	mg/L	30	100
Oil and Grease	mg/L	15	20
Copper, Total Recoverable	mg/L	1.0	1.0
Iron, Total Recoverable	mg/L	1.0	1.0

4.2.4.6. Closed Cooling Water Sources

In addition to the intake once-through cooling water for the main condenser, two other closed cooling water systems are used at the Facility, the component cooling water associated with the auxiliary seawater cooling system (Discharge Point 001B) and the service water cooling system (Discharge Point 001E). Similar to the once-through cooling water for the main condensers, sodium hypochlorite is used in the auxiliary seawater cooling system for biofouling control. Because the auxiliary seawater cooling system and service water cooling system discharges are combined with the once-through cooling water for the main condensers prior to discharge through Discharge Point 001, technology-based effluent limitations have not been established for oxidants at Discharge Points 001B and 001E.

Other intermittent discharges from the closed cooling water systems include periodical draining of the systems for maintenance. In accordance with procedures previously approved by Central Coast Water Board, any drainage from these systems is discharged at a flow rate such that the chronic toxicity level at Discharge Point 001 is below the no observable effect level (NOEL). In accordance with 40 section CFR 122.44(k), these discharge procedures are considered best management practices (BMPs) that are used in lieu of numerical technology-based effluent limitations. Consistent with the existing procedures, the Discharger will be required to report the volume of any discharge from internal Discharge Points 001B and 001E.

4.2.4.7. Sanitary Wastewater Sources

The Facility maintains a small package treatment facility to treat domestic sewage generated on site from approximately 1,300 regular workers, which increases to about 2,000 workers during refueling events. Sanitary waste goes through secondary treatment prior to discharge through Discharge Point 001N, which conveys treated sanitary wastes to Discharge Point 001.

Treatment standards based on the minimum level of effluent quality attainable by secondary treatment are established at 40 CFR part 133 for POTWs. Although the Facility is not a POTW, the level of treatment attained by the on-site sanitary wastewater system is comparable to POTWs that are subject to secondary treatment standards in the Central Coast Region. Based on BPJ, the Central Coast Water Board has determined that secondary treatment standards

are applicable to Discharge Point 001N. Therefore, this Order establishes new technology-based effluent limitations for BOD_5 and pH based on the standards set forth in 40 CFR part 133 and establishes more stringent effluent limitations for TSS at Discharge Point 001N for the reasons described below.

In addition to the secondary treatment standards, Order 90-09 included technology-based effluent limitations for oil and grease based on BPJ and effluent limitations in early iterations of Ocean Plan. These TBELs were more stringent than those currently reflected in Table 4 of the current version of the Ocean Plan, adopted in 2019. Effluent limitations for settleable solids and oil and grease reflect pollutant removals attainable by secondary treatment and are similar to those at other privately owned treatment works in the Central Coast Region. The Discharger has demonstrated the ability to consistently comply with the effluent limitations in 90-09. Therefore, based on BPJ, the more stringent limits for oil and grease are retained from Order 90-09. (See, 40 CFR § 125.3.) Effluent limitations for turbidity and a weekly effluent limitation for settleable solids have been established in the Order based on Table 4 of the 2019 Ocean Plan.

Technology-based effluent limitations established in this Order at Discharge Point 001N are shown in Table F-17 below.

Table F-17. Technology-Based Effluent Limitations for Sanitary Wastewater at Discharge Point 001N

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
BOD_5[1]	mg/L	30	45			
TSS[1]	mg/L	30	45			
pH	standard units				6.0	9.0
Oil and Grease	mg/L	15		20		
Settleable Solids	mL/L	1.0	1.5	3.0		
Turbidity	NTU	75	100			225

[1] The average monthly percent removal shall not be less than 85 percent.

4.3. Water Quality-Based Effluent Limitations (WQBELs)

4.3.1. Scope and Authority

Section 301(b) of the CWA and 40 CFR section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

Section 122.44(d)(1)(i) of 40 CFR requires that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable

potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan and achieve applicable WQOs and criteria that are contained in other state plans and policies, or any applicable water quality criteria contained in the Ocean Plan.

4.3.2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

Beneficial uses of ocean waters of the Central Coast Region are established by the Basin Plan and Ocean Plan and are described in sections 3.3.1 and 3.3.3, respectively, of this Fact Sheet.

The WQOs applicable to ocean waters in the Central Coast Region include those for bacterial characteristics, physical characteristics, chemical characteristics, biological characteristics, and radioactivity. In addition, Table 3 of the Ocean Plan contains numeric WQOs for 83 toxic pollutants for the protection of marine aquatic life and human health. Pursuant to NPDES regulations at 40 CFR section 122.44(d)(1) and in accordance with procedures established by the Ocean Plan, the Central Coast Water Board has performed a reasonable potential analysis (RPA) to determine the need for effluent limitations for the Ocean Plan Table 3 toxic pollutants.

4.3.3. Determining the Need for WQBELs

Procedures for performing an RPA for ocean discharges are described in section III.C and appendix VI of the Ocean Plan. The procedure is a statistical approach that projects an effluent data set while taking into account the averaging period of WQOs, the long-term variability of pollutants in the effluent, limitations associated with sparse data sets, and uncertainty associated with censored data sets. The procedure assumes a lognormal distribution of the effluent data set and compares the 95th percentile concentration at 95th percent confidence of each Ocean Plan Table 3 pollutant, accounting for dilution, to the applicable water quality criterion. The RPA results in one of three following endpoints:

Endpoint 1 - There is "reasonable potential." An effluent limitation must be developed for the pollutant. Effluent monitoring for the pollutant, consistent with the monitoring frequency in appendix III (Ocean Plan), is required.

Endpoint 2 - There is no “reasonable potential.” An effluent limitation is not required for the pollutant. Appendix III (Ocean Plan) effluent monitoring is not required for the pollutant; the Regional Board, however, may require occasional monitoring for the pollutant or for whole effluent toxicity (WET) as appropriate.

Endpoint 3 - The RPA is inconclusive. Monitoring for the pollutant or WET testing consistent with the monitoring frequency in appendix III of the Ocean Plan is required. An existing effluent limitation for the pollutant shall remain in the permit, otherwise the permit shall include a reopener clause to allow for subsequent modification of the permit to include an effluent limitation if monitoring establishes that the discharge causes or has the reasonable potential to cause or contribute to an excursion above an Ocean Plan Table 3 WQO.

The State Water Board has developed a reasonable potential calculator, which is available at:

http://www.swrcb.ca.gov/water_issues/programs/ocean/docs/trirev/stakeholder050505/rpcalc20_setup.exe

The calculator (RPcalc 2.0) was used in the development of this Order and considers several pathways in the determination of reasonable potential.

First Path - If available information about the receiving water or the discharge supports a finding of reasonable potential without analysis of effluent data, the Central Coast Water Board may decide that WQBELs are necessary after a review of such information. Such information may include: the facility or discharge type, solids loading, lack of dilution, history of compliance problems, potential toxic effects, fish tissue data, 303(d) status of the receiving water, the presence of threatened or endangered species or their critical habitat, or other information.

Second Path - If any pollutant concentration, adjusted to account for dilution, is greater than the most stringent applicable WQO, there is reasonable potential for that pollutant.

Third Path - If the effluent data contains three or more detected and quantified values (i.e., values that are at or above the minimum level (ML), and all values in the data set are at or above the ML, a parametric RPA is conducted to project the range of possible effluent values. The 95th percentile concentration is determined at 95 percent confidence for each pollutant and compared to the most stringent applicable WQO to determine reasonable potential. A parametric analysis assumes that the range of possible effluent values is distributed log-normally. If the 95th percentile value is greater than the most stringent applicable WQO, there is reasonable potential for that pollutant.

Fourth Path - If the effluent data contains three or more detected and quantified values (i.e., values that are at or above the ML), but at least one value in the data set is less than the ML, a parametric RPA is conducted according to the following steps:

If the number of censored values (those expressed as a “less than” value) account for less than 80 percent of the total number of effluent values, calculate the ML (the mean of the natural log of transformed data) and SL (the standard deviation of the natural log of transformed data) and conduct a parametric RPA, as described above for the Third Path.

If the total number of censored values account for 80 percent of the total number of effluent values, conduct a non-parametric RPA, as described below for the fifth path. (A non-parametric analysis becomes necessary when the effluent data is limited, and no assumptions can be made regarding its possible distribution).

Fifth Path - A non-parametric RPA is conducted when the effluent data set contains fewer than three detected and quantified values, or when the effluent data set contains three or more detected and quantified values but the number of censored values accounts for 80 percent or more of the total of effluent values. A non-parametric analysis is conducted by ordering the data, comparing each result to the applicable WQO, and accounting for ties. The sample number is reduced by one for each tie, when the dilution-adjusted method detection limit (MDL) is greater than the WQO. If the adjusted sample number, after accounting for ties, is greater than 15, the pollutant has no reasonable potential to exceed the WQO. If the sample number is 15 or less, the RPA is inconclusive, monitoring is required, and any existing effluent limits in the expiring permit are retained.

4.3.3.1. RPA Results

The Central Coast Water Board conducted RPAs for discharges from Discharge Point 001 using effluent monitoring data submitted by the Discharger from January 2020 through March 2025 and from Discharge Points 003 and 004 using effluent monitoring data submitted by the Discharger for January 2025. For the purposes of this Order, the Central Coast Water Board determined that reasonable potential should be based on the most recent five years of data collected under Order 90-09, because these data were representative and reflective of existing effluent and receiving water conditions.

Order 90-09 granted a minimum initial dilution factor (Dm) for discharges from Discharge Point 001 of 4.1 to 1 (seawater to effluent) based on a dilution study report submitted by the Discharger titled *Estimation of the Dilution Factor for the Diablo Canyon Power Plant* (February 1988). However, after reviewing the 1988 dilution study, the Central Coast Water Board determined that the dilution

factor established in Order 90-09 was based on the plume-averaged dilution as opposed to the centerline dilution, which reflects the minimum dilution at the end of the mixing zone and is a more conservative estimate of dilution. The minimum dilution at the centerline is 2.9 to 1 (seawater to effluent). Therefore, the Dm of 2.9 was used for the RPA and applied to WQBELs established in this Order for Discharge Point 001. Since the 1988 dilution study did not consider discharges from Discharge Points 003 and 004, no dilution was granted for these discharge points. Due to the age of the data and methods used for the 1988 dilution study, this Order includes a provision requiring the Discharger to conduct a new dilution study. If the actual dilution ratio is found to be different, then the ratio will be recalculated and this Order may be reopened when and as appropriate.

4.3.3.1.1. A summary of the RPA results for Discharge Point 001 is provided in Table F-18 below. As shown in the table, due to insufficient data, the RPA frequently leads to Endpoint 3, meaning that the RPA was inconclusive. In these circumstances, the Ocean Plan requires that existing effluent limitations for those pollutants (for which the RPA is inconclusive) remain in the reissued permit. Pollutants that resulted in Endpoint 3 and had existing limits in Order 90-09 include total lead, mercury, silver, cyanide, phenolic compounds, and chlorinated phenolics.

When the RPA leads to Endpoint 2, meaning there is no reasonable potential for that pollutant, the limit has been removed for this permit term. Pollutants that resulted in Endpoint 2 and had existing limits in Order 90-09 include arsenic, cadmium, copper, zinc, ammonia, and chronic toxicity.

When using all available data for the past five years, the analysis displayed reasonable potential, as indicated by a result of Endpoint 1, for hexavalent chromium, nickel, and total chlorine residual at Discharge Point 001.

Table F-18. Summary of RPA Results for Discharge Point 001

Parameter	Units	n[1]	MEC[2],[3]	Most Stringent Criterion[4]	RPA Endpoint[5]
Arsenic	µg/L	6	1.4	8	2
Cadmium	µg/L	6	0.051	1	2
Chromium	µg/L	64	17	2	1
Copper	µg/L	64	<5	3	2
Lead	µg/L	6	0.058	2	3
Mercury	µg/L	6	0.0014	0.04	3
Nickel	µg/L	64	24	5	1
Selenium	µg/L	1	<10	15	3
Silver	µg/L	6	<1.0	0.7	3
Zinc	µg/L	64	12	20	2
Cyanide	µg/L	6	<20	1	3

Parameter	Units	n[1]	MEC[2],[3]	Most Stringent Criterion[4]	RPA Endpoint[5]
Total Residual Chlorine	µg/L	63	61	2	1
Ammonia	µg/L	21	290	600	2
Acute Toxicity	TUa	NA	NA	0.3	--
Chronic Toxicity	TUc	21	1.0	1	2
Phenolic Compounds	µg/L	5	<3.031	30	3
Chlorinated Phenolics	µg/L	5	<0.57	1	3
Endosulfan[12]	µg/L	1	<0.0013	0.009	3
Endrin	µg/L	1	<0.0021	0.002	3
HCH[13]	µg/L	1	<0.00066	0.004	3
Radioactivity	pCi/L	NA	NA	--	--
Acrolein	µg/L	1	<1.8	220	3
Antimony	µg/L	1	<7.1	1200	3
Bis(2-chloroethoxyl)methane	µg/L	1	<0.12	4.4	3
Bis(2-chloroisopropyl)ether	µg/L	1	<0.15	1200	3
Chlorobenzene	µg/L	1	<0.14	570	3
Chromium (III)	µg/L	1	<0.0030	190000	3
Di-n-butyl phthalate	µg/L	1	<1.2	3500	3
Dichlorobenzenes[6]	µg/L	1	<0.13	5100	3
Diethyl phthalate	µg/L	1	<0.35	33000	3
Dimethyl phthalate	µg/L	1	<2.8	820000	3
4,6-Dinitro-2-methylphenol	µg/L	1	<3.0	220	3
2,4-Dinitrophenol	µg/L	1	<4.5	4	3
Ethylbenzene	µg/L	1	<0.090	4100	3
Fluoranthene	µg/L	1	<0.097	15	3
Hexachlorocyclopentadiene	µg/L	1	<0.19	58	3
Nitrobenzene	µg/L	1	<0.15	4.9	3
Thallium	µg/L	1	<0.14	2	3
Toluene	µg/L	1	<0.11	85000	3
Tributyltin	µg/L	1	0.0051	0.0014	3
1,1,1-Trichloroethane	µg/L	1	<0.19	540000	3
Acrylonitrile	µg/L	1	<0.98	0.1	3
Aldrin	µg/L	1	<0.0031	0.000022	3
Benzene	µg/L	1	<0.10	5.9	3
Benzidine	µg/L	1	<1.6	0.000069	3
Beryllium	µg/L	1	<5.3	0.033	3
Bis(2-chloroethyl)ether	µg/L	1	<0.12	0.045	3
Bis(2-ethylhexyl)phthalate	µg/L	1	<1.9	3.5	3

Parameter	Units	n[1]	MEC[2],[3]	Most Stringent Criterion[4]	RPA Endpoint[5]
Carbon tetrachloride	µg/L	1	<0.20	0.9	3
Chlordane[6]	µg/L	1	<0.00083	0.000023	3
Chlorodibromomethane	µg/L	1	<0.13	8.6	3
Chloroform	µg/L	1	<0.25	130	3
DDT[6]	µg/L	1	<0.00085	0.00017	3
1,4-Dichlorobenzene	µg/L	1	<0.12	18	3
3,3'-Dichlorobenzidine	µg/L	1	<0.95	0.0081	3
1,2-Dichloroethane	µg/L	1	<0.17	28	3
1,1-Dichloroethylene	µg/L	1	<0.19	0.9	3
Dichlorobromomethane	µg/L	1	<0.13	6.2	3
Dichloromethane	µg/L	1	<0.63	450	3
1,3-Dichloropropene	µg/L	1	<0.14	8.9	3
Dieldrin	µg/L	1	<0.0013	0.00004	3
2,4-Dinitrotoluene	µg/L	1	<0.22	2.6	3
1,2-Diphenylhydrazine	µg/L	1	<0.042	0.16	3
Halomethanes[6]	µg/L	1	<0.23	130	3
Heptachlor	µg/L	1	<0.0012	0.00005	3
Heptachlor Epoxide	µg/L	1	<0.0039	0.00002	3
Hexachlorobenzene	µg/L	1	<0.12	0.00021	3
Hexachlorobutadiene	µg/L	1	<0.19	14	3
Hexachloroethane	µg/L	1	<0.17	2.5	3
Isophorone	µg/L	1	<0.12	730	3
N-nitrosodimethylamine	µg/L	1	<0.16	7.3	3
N-nitrosodi-N-propylamine	µg/L	1	<0.10	0.38	3
N-nitrosodiphenylamine	µg/L	1	<0.054	2.5	3
PAHs[6]	µg/L	1	<0.045	0.0088	3
PCBs[6]	µg/L	6	<0.028	0.000019	3
TCDD equivalents[6]	µg/L	1	<6.7E-7	3.9E-09	3
1,1,2,2-Tetrachoroethane	µg/L	1	<0.15	2.3	3
Tetrachloroethylene	µg/L	1	<0.14	2	3
Toxaphene	µg/L	1	<0.054	0.00021	3
Trichloroethylene	µg/L	1	<0.11	27	3
1,1,2-Trichloroethane	µg/L	1	<0.20	9.4	3
2,4,6-Trichlorophenol	µg/L	1	<0.10	0.29	3
Vinyl Chloride	µg/L	1	<0.16	36	3

NA = Not Available
[1] Number of data points available for the RPA.

[2] If there is a detected value, the highest reported value (maximum effluent concentration; MEC) is summarized in the table. If there are no detected values, the lowest MDL is summarized in the table.
[3] Note that the reported MEC does not account for dilution. The RPA does account for dilution; therefore, it is possible for a parameter with an MEC in exceedance of the most stringent criteria not to present a reasonable potential (i.e., endpoint 1).
[4] The most stringent criteria are the WQOs listed in Table 1 of the Ocean Plan and do not take into account dilution.
[5] Endpoint 1 – Reasonable potential determined, limit required, monitoring required.
Endpoint 2 – Discharger determined to not have reasonable potential, monitoring may be established.
Endpoint 3 – RPA was inconclusive, carry over previous limits if applicable, and establish monitoring.
[6] As defined in Attachment A.

4.3.3.1.2. A summary of the RPA results for Discharge Points 003 and 004 is provided in Table F-19 below. As shown in the table, due to insufficient data, the RPA frequently leads to endpoint 3, meaning that the RPA was inconclusive. As explained above, the Ocean Plan requires that any existing effluent limitations for pollutants for which the RPA is inconclusive remain in the reissued permit. There are no existing effluent limitations for the pollutants in Table F-22 for Discharge Points 003 and 004 in Order 90-09.

When the RPA leads to endpoint 2, meaning there is no reasonable potential for that pollutant, the limit has been removed for this permit term. As shown in Table F-18, the RPA did not lead to endpoint 2 for any pollutants.

For the purposes of reviewing relevant data that is representative and reflective of existing effluent and receiving water conditions, only five years of data was used. The RPA found reasonable potential, indicated by a result of endpoint 1, tributyltin at Discharge Points 003 and 004.

Table F-19. Summary of RPA Results for Discharge Points 003 and 004

Parameter	Units	n[1]	MEC (003)[2] [3]	MEC (004)[2] [3]	Most Stringent Criterion[4]	RPA Endpoint[5]
Arsenic	µg/L	1	<3.2	<3.2	8	3
Cadmium	µg/L	1	<0.12	<0.12	1	3
Chromium	µg/L	1	<0.51	<0.51	2	3
Copper	µg/L	1	<1.0	<1.0	3	3
Lead	µg/L	1	<0.17	<0.17	2	3
Mercury	µg/L	1	<0.20	<0.20	0.04	3
Nickel	µg/L	1	<1.2	<1.2	5	3
Selenium	µg/L	1	<10	<10	15	3
Silver	µg/L	1	<0.35	<0.35	0.7	3

Parameter	Units	n[1]	MEC (003)[2] [3]	MEC (004)[2] [3]	Most Stringent Criterion[4]	RPA Endpoint[5]
Zinc	µg/L	1	<2.3	<2.3	20	3
Cyanide	µg/L	1	<4.0	<4.0	1	3
Total Residual Chlorine	µg/L	1	<110	<10	2	3
Ammonia	µg/L	1	<179	<179	600	3
Acute Toxicity	TUa	NA	NA	NA	0.3	--
Chronic Toxicity	TUc	NA	NA	NA	1	--
Phenolic Compounds	µg/L	1	<0.11	<0.11	30	3
Chlorinated Phenolics	µg/L	1	<0.095	<0.095	1	3
Endosulfan[6]	µg/L	1	<0.0013	<0.0013	0.009	3
Endrin	µg/L	1	<0.0021	<0.0023	0.002	3
HCH[6]	µg/L	1	<0.00066	<0.00066	0.004	3
Radioactivity	pCi/L	NA	NA	NA	--	--
Acrolein	µg/L	1	<1.8	<1.8	220	3
Antimony	µg/L	1	<7.1	<7.1	1200	3
Bis(2-chloroethoxyl)methane	µg/L	1	<0.12	<0.12	4.4	3
Bis(2-chloroisopropyl)ether	µg/L	1	<0.12	<0.15	1200	3
Chlorobenzene	µg/L	1	<0.14	<0.14	570	3
Chromium (III)	µg/L	1	<3.0	<3.0	190000	3
Di-n-butyl phthalate	µg/L	1	<1.2	<1.2	3500	3
Dichlorobenzenes[6]	µg/L	1	<0.13	<0.13	5100	3
Diethyl phthalate	µg/L	1	<0.35	<0.35	33000	3
Dimethyl phthalate	µg/L	1	<2.8	<2.8	820000	3
4,6-Dinitro-2-methylphenol	µg/L	1	<3.0	<3.0	220	3
2,4-Dinitrophenol	µg/L	1	<4.5	<4.5	4	3
Ethylbenzene	µg/L	1	<0.090	<0.090	4100	3
Fluoranthene	µg/L	1	<0.097	<0.097	15	3
Hexachlorocyclopentadiene	µg/L	1	<0.19	<0.19	58	3
Nitrobenzene	µg/L	1	<0.15	<0.15	4.9	3
Thallium	µg/L	1	<0.14	<0.14	2	3
Toluene	µg/L	1	<0.11	<0.11	85000	3
Tributyltin	µg/L	1	0.011	0.0033	0.0014	1
1,1,1-Trichloroethane	µg/L	1	<0.19	<0.19	540000	3
Acrylonitrile	µg/L	1	<0.98	<0.98	0.1	3
Aldrin	µg/L	1	<0.0031	<0.0031	0.000022	3
Benzene	µg/L	1	<0.10	<0.10	5.9	3
Benzidine	µg/L	1	<1.6	<8.6	0.000069	3

Parameter	Units	n[1]	MEC (003)[2] [3]	MEC (004)[2] [3]	Most Stringent Criterion[4]	RPA Endpoint[5]
Beryllium	µg/L	1	<5.3	<5.3	0.033	3
Bis(2-chloroethyl)ether	µg/L	1	<0.12	<0.12	0.045	3
Bis(2-ethylhexyl)phthalate	µg/L	1	<1.9	<1.9	3.5	3
Carbon tetrachloride	µg/L	1	<0.20	<0.20	0.9	3
Chlordane[6]	µg/L	1	<0.00083	<0.00083	0.000023	3
Chlorodibromomethane	µg/L	1	<0.13	<0.13	8.6	3
Chloroform	µg/L	1	<0.25	<0.25	130	3
DDT[6]	µg/L	1	<0.00085	<0.00085	0.00017	3
1,4-Dichlorobenzene	µg/L	1	<0.12	<0.12	18	3
3,3'-Dichlorobenzidine	µg/L	1	<0.95	<0.95	0.0081	3
1,2-Dichloroethane	µg/L	1	<0.17	<0.17	28	3
1,1-Dichloroethylene	µg/L	1	<0.19	<0.19	0.9	3
Dichlorobromomethane	µg/L	1	<0.13	<0.13	6.2	3
Dichloromethane	µg/L	1	<0.63	<0.63	450	3
1,3-Dichloropropene	µg/L	1	<0.14	<0.14	8.9	3
Dieldrin	µg/L	1	<0.0013	<0.0013	0.00004	3
2,4-Dinitrotoluene	µg/L	1	<0.22	<0.22	2.6	3
1,2-Diphenylhydrazine	µg/L	1	<0.042	<0.042	0.16	3
Halomethanes[6]	µg/L	1	5.1	<0.23	130	3
Heptachlor	µg/L	1	<0.0012	<0.0012	0.00005	3
Heptachlor Epoxide	µg/L	1	<0.0039	<0.0039	0.00002	3
Hexachlorobenzene	µg/L	1	<0.12	<0.12	0.00021	3
Hexachlorobutadiene	µg/L	1	<0.19	<0.19	14	3
Hexachloroethane	µg/L	1	0.17	<0.17	2.5	3
Isophorone	µg/L	1	<0.12	<0.12	730	3
N-nitrosodimethylamine	µg/L	1	<0.16	<0.16	7.3	3
N-nitrosodi-N-propylamine	µg/L	1	<0.10	<0.10	0.38	3
N-nitrosodiphenylamine	µg/L	1	<0.054	<0.054	2.5	3
PAHs[6]	µg/L	1	<0.045	<0.045	0.0088	3
PCBs[6]	µg/L	1	<0.044	<0.044	0.000019	3
TCDD equivalents[6]	pg/L	1	<3.7E7	<0.37	3.9E-09	3
1,1,2,2-Tetrachoroethane	µg/L	1	<0.15	<0.15	2.3	3
Tetrachloroethylene	µg/L	1	<0.14	<0.14	2	3
Toxaphene	µg/L	1	<0.054	<0.054	0.00021	3
Trichloroethylene	µg/L	1	<0.11	<0.11	27	3
1,1,2-Trichloroethane	µg/L	1	<0.20	0.2	9.4	3

Parameter	Units	n[1]	MEC (003)[2] [3]	MEC (004)[2] [3]	Most Stringent Criterion[4]	RPA Endpoint[5]
2,4,6-Trichlorophenol	µg/L	1	<0.10	<0.1	0.29	3
Vinyl Chloride	µg/L	1	<0.16	<0.16	36	3

NA = Not Available

[1] Number of data points available for the RPA.

[2] If there is a detected value, the highest reported value is summarized in the table. If there are no detected values, the lowest MDL is summarized in the table.

[3] Note that the reported MEC does not account for dilution. Dilution credits have not been granted for these discharge points and dilution was not considered in this analysis.

[4] The most stringent criteria are the WQOs listed in Table 1 of the Ocean Plan and do not take into account dilution.

[5] Endpoint 1 – Reasonable potential determined, limit required, monitoring required.
Endpoint 2 – Discharge determined not to have reasonable potential, monitoring may be established.
Endpoint 3 – RPA was inconclusive, carry over previous limits if applicable, and establish monitoring.

[6] As defined in Attachment A.

4.3.4. WQBEL Calculations

As described by section III. C of the California Ocean Plan, concentration-based effluent limitations for Table 3 pollutants are calculated according to the following equation.

Ce = Co + Dm (Co – Cs)

Where,

Ce = the effluent limitation (µg/L)
Co = the concentration (the water quality objective) to be met at the completion of initial dilution (µg/L).
Cs= background seawater concentration (µg/L)
Dm = minimum probable initial dilution expressed as parts seawater per part wastewater

Using this formula, WQBELs were calculated for hexavalent chromium, copper, lead, mercury, nickel, silver, cyanide, total residual chlorine, phenolic compounds, and chlorinated phenolics at Discharge Point 001 with a Dm of 2.9. WQBELs were also calculated for total residual chlorine and tributyltin at Discharge Points 003 and 004 with a Dm of 0.

As site-specific water quality data are not available, in accordance with Ocean Plan implementing procedures for Table 3, Cs equals zero for all pollutants, except those specified below:

Table F-20. Background Concentrations from Table 5 of the Ocean Plan

Pollutant	Background Seawater Concentration
Arsenic	3 µg/L
Copper	2 µg/L
Mercury	0.0005 µg/L
Silver	0.16 µg/L
Zinc	8 µg/L

Section 122.45(f)(1) of 40 CFR requires effluent limitations be expressed in terms of mass, with some exceptions, and 40 CFR section 122.45(f)(2) allows pollutants that are limited in terms of mass to additionally be limited in terms of other units of measurement. Part 423 of 40 CFR and BPJ allow the permitting authority to establish concentration limits in lieu of mass-based limits. However, section II1.C.4.j of the Ocean Plan requires that mass limitations be established for all parameters in Table 3 of the Ocean Plan. Therefore, this Order includes effluent limitations expressed in terms of mass and concentration for Ocean Plan Table 3 parameters.

In addition, pursuant to the exceptions to mass limitations provided in 40 CFR section 122.45(f)(1), some effluent limitations are not expressed in terms of mass, such as pH and temperature, and when the applicable standards are expressed in terms of concentration (e.g., California Toxics Rule criteria and maximum contaminant levels) and mass limitations are not necessary to protect the beneficial uses of the receiving water.

Section III.C.8.d of the 2019 Ocean Plan describes compliance determination for Table 3 pollutants for dischargers that use a large volume of ocean water for once-through cooling and states:

"…*Effluent concentration values (Ce) shall be determined through the use of equation 1 considering the minimum probable initial dilution of the combined effluent (in-plant waste streams plus cooling water flow). These concentration values shall then be converted to mass emission limitations as indicated in equation 3. The mass emission limits will then serve as requirements applied to all in-plant waste streams taken together which discharge into the cooling water flow, except for total chlorine residual, acute [if applicable per Section 3(c)] and chronic toxicity, and instantaneous maximum concentrations in Table 1 shall apply to, and be measured in, the combined final effluent, as adjusted for dilution with ocean water*…"

In accordance with Ocean Plan implementation procedures for dischargers using a large volume of ocean water for once-through cooling, this Order establishes WQBELs applicable to the combined discharge through Discharge Point 001 as concentration-based limitations for all California Ocean Plan Table 3 parameters exhibiting reasonable potential and requiring instantaneous maximum limitations, and as both concentration- and mass-based limitations for all Ocean Plan Table 3 parameters requiring six-month median, average monthly (30-day average), and maximum daily effluent limitations. This Order also establishes WQBELs

applicable to the low volume in-plant waste streams as mass-based limitations for all Ocean Plan Table 3 parameters requiring six-month median, 30-day average, and maximum daily effluent limitations, with compliance determined by the total in-plant waste streams mass discharge taken together, which will be calculated as the sum of the mass discharges from the individual in-plant waste streams.

Consistent with WQOs contained in the 2019 California Ocean Plan, this Order establishes WQBELs for the parameters that demonstrated reasonable potential on a six-month median, daily maximum, and instantaneous maximum-basis using the following formula:

Lbs/day = 0.00834 x Ce x Q

Where,

Ce = the concentration-based effluent limitation (µg/L)
Q = the maximum flow rate at the discharge point reported in the ROWD

4.3.5. pH

Although 40 CFR section 423.12(b)(1) establishes ELGs for pH that are applicable to the Facility (see, Fact Sheet, section 4.2.3.2, *infra*), the Central Coast Water Board conducted RPAs for pH at Discharge Points 001, 002, 003, and 004 to determine if reasonable potential existed for the discharge to cause or contribute to an exceedance of the more stringent WQOs in the Basin Plan. From January 2020 through March 2025, the effluent at Discharge Points 001, 002, 003 and 004 was within the pH WQO range of 7.0 to 8.3 standard units and did not show reasonable potential to cause or contribute to exceedances of WQOS from the Basin Plan. Therefore, WQBELS for pH are not applied at Discharge Points 001, 002, 003, and 004.

No monitoring data exists to evaluate reasonable potential for pH at Discharge Points 016, 017, 022, 026 and 027. Monitoring for pH has been established in this permit to determine if Discharge Points 016, 027, 022, 026, and 027 have reasonable potential to cause or contribute to an exceedance of the more stringent WQO's of the Basin Plan. WQBELS for pH are not established for Discharge Points 016, 017, 022, 026 and 027.

4.3.6. Temperature

The temperature of cooling water at the Facility rises approximately 20ºF during commercial operation; however, cooling water temperature increases may be greater than 20ºF under transient conditions. Transient conditions can include load rejection, steam dump, generator trip, and conditions resulting from operation of engineered safety features, as well as periods of reduced flow resulting from condenser tube sheet plugging, condenser fouling, or loss of circulating water pump.

Pursuant to the Thermal Plan, existing thermal discharges shall "comply with limitations necessary to assure protection of beneficial uses and Areas of Special Biological Significance." There are no designated Areas of Special Biological

Significance (ASBS) near the Diablo Canyon Power Plant. The nearest designated ASBS is the ocean area surrounding the mouth of Salmon Creek, approximately 60 miles north of Diablo Cove. Therefore, the operative portion of the objective is compliance with limitations necessary to protect beneficial uses. The beneficial uses of the Pacific Ocean, including Diablo Cove, are listed in section 3.3.3 of this Fact Sheet.

The State Water Board's Water Quality Order 83-1, a precedential decision resolving petitions of the Discharger's 1982 NPDES permit, Central Coast Water Board Order 82-24 (NPDES Permit CA0003751), determined that the Thermal Plan narrative objective requiring protection of beneficial uses meant "reasonable" protection and so accommodated some degradation of the marine habitat beneficial use by the thermal discharge. Order 83-1 held that the Facility thermal discharge, subject to an effluent limitation of 20ºF over the intake water temperature (except during heat treatments), provided reasonable protection of the marine habitat beneficial use, considering predicted adverse impacts. Order 83-1 also required the Discharger to perform thermal effects monitoring to provide ongoing data on thermal impacts, included a requirement that during heat treatment of Unit 1, Unit 2 circulating pumps must be run at full capacity with no commercial load (heat output), and established a maximum discharge water temperature of 100°F during heat treatments.

The Central Coast Water Board subsequently issued Order No. 85-101, which raised the discharge temperature increase limit to a daily average of 22°F. The increase from 20ºF was based on additional operational information, which indicated the temperature could reach 22°F. During heat treatments, the daily average temperature increase was set at 25°F, with a maximum of 50°F for one hour during a 24-hour period of treatment. These requirements were carried over to Order 90-09, which contained the following effluent limitations for temperature:

- *The daily average discharge temperature shall not exceed the daily average of the natural temperature of the intake water by more than 22ºF (12.2ºC), except during heat treatment.*
- *During heat treatment for demusseling, the daily average discharge temperature shall not exceed the daily average of the natural temperature of the intake water by more than 25ºF (13.9ºC), and the maximum temperature increase (delta T) measured at the point of discharge of the unit being treated shall be less than 50ºF (27.8ºC) over that of the intake. The duration of maximum temperature during heat treatment of any half-condenser shall not exceed one hour during any 24-hour period. Pumps for the unit not being treated should be operated during demusseling.* The Discharger maintained compliance with this temperature effluent limitation; however, the Central Coast Water Board alleged that elevated effluent discharge temperatures impacted marine life and violated narrative receiving water limits.

On February 25, 2021, the Central Coast Water Board entered into a consent judgment with the Discharger as a final resolution to litigation regarding the

discharge of thermal waste from the Facility (*People of the State of California, ex rel. California Regional Water Quality Control Board, Central Coast Region v. Pacific Gas and Electric Company*, 2021, Case No. 21CV-0111). According to the administrative record in that case and the undertakings to be performed by PG&E as a result of the consent judgment, the effluent limitation limiting the daily average temperature difference between the intake and effluent (ΔT limit) 22ºF (12.2ºC) complies with the Thermal Plan, receiving water limits in Order 90-09, and the general condition in Order 90-09 stating that the "[c]ollection, treatment, and discharge of waste shall not create a nuisance or pollution, as defined by Section 13050 of the Water Code." In addition to the data analyzed in support of the consent judgement and the outcome of the consent judgment itself, an analysis of the temperature data from January 2000 through December 2024 showed that the Facility has had no compliance issues related to the daily average ΔT effluent limitations since 2016 (see section 2.4 of this Fact Sheet). Therefore, the daily average ΔT effluent limitation of 22ºF (12.2ºC) has been retained in this Order.

The Discharger also stated in its ROWD for permit reissuance that the Facility no longer employs heat treatment as a method of biofouling. Therefore, the effluent limitations for temperature during heat treatment are not necessary and have not been retained from Order 90-09, as discussed in section 4.4.1 of this Fact Sheet.

4.4. Final Effluent Limitation Considerations

4.4.1. Anti-Backsliding Requirements

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 CFR section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. The effluent limitations in this Order are at least as stringent as the effluent limitations in the previous order, with the exception of Discharge Points no longer permitted (001I, 001K, 005, 006, 008, 009, 013, and 015) and certain limits at Discharge Point 001, as described below.

Effluent limitations established in Order 90-90 for arsenic, cadmium, copper, zinc, ammonia, and toxicity at Discharge Point 001 have not been retained, based on the RPA results. As discussed in section 4.3.3.1 of this Fact Sheet, these pollutants no longer demonstrate reasonable potential. Under CWA sections 402(o)(1) and 303(d)(4)(B) for receiving waters in attainment, the relaxation of water quality-based effluent limitations is allowable if the action is consistent with the antidegradation policies described in section 4.4.2 below. As discussed in section 4.4.2, the removal of these effluent limitations is consistent with federal and state antidegradation policies. Therefore, these effluent limitations have been removed.

In addition, the effluent limitations established in Order 90-09 for temperature during heat treatment at Discharge Point 001 have not been retained. As discussed in section 4.3.6 of this Fact Sheet, the Discharger stated in its ROWD

that the Facility no longer uses and has no plans for future use of heat treatments for biofouling. Therefore, the use of heat treatment at the Facility is not authorized under this Order. Since heat treatment is no longer permitted at the Facility, the temperature limits related to this type of treatment are not necessary. Section 402(o)(2)(B)(i) of the CWA allows for the relaxation of effluent limitations where information is available that was not available at the time of permit issuance. Based on the new information provided with the Discharger's ROWD, elimination of these effluent limitations is consistent with the anti-backsliding regulations. Therefore, temperature limits during heat treatment have not been retained in this Order.

Technology-based effluent limitations established in Order 90-09 for Discharge Points 001I and 001K have not been retained since discharge from these locations has been discontinued and will not occur in the future. As discussed in section 2.2.1 of this Fact Sheet, the Discharger stated in its ROWD that Discharge Points 001I and 001K are no longer in service. Based on this new information, elimination of the effluent limitations associated with these discharge points is consistent with the anti-backsliding exception in section 402(o)(2)(B)(i) of the CWA. Therefore, these limits have not been retained in this Order.

Technology-based effluent limitations established in Order 90-09 for stormwater discharges from Discharge Points 005, 006, 008, 009, 013, and 015 have not been retained since these discharges are now regulated under the Industrial General Permit. The stormwater requirements and conditions in the Industrial General Permit are at least as stringent at the requirements for these discharge points in Order 90-09. Based on this information, elimination of the effluent limitations associated with these discharge points is consistent with the anti-backsliding exception in section 402(o)(2)(B)(i) of the CWA.

The Central Coast Water Board has determined, based on the information reported in the ROWD, that the operational challenges associated with biofouling at the Facility and the baseload power generation needs of the State during the summer peak periods described above demonstrate the need for additional chlorine injection time for macroinvertebrate control. Therefore, in addition to the instantaneous maximum effluent limitation in Table F-1 above, this Order includes a requirement that total residual chlorine may not be discharged from any single generating unit for more than four hours per day. At least 30 minutes must separate the chlorine discharge from each generating unit.

4.4.2. Antidegradation Policies

Federal regulations at 40 CFR section 131.12 require that state water quality standards include an antidegradation policy consistent with federal requirements. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California*. Where the federal antidegradation policy is applicable, the State Water Board has interpreted Resolution 68-16 to incorporate

the federal antidegradation policy. (State Water Board Order WQ 86-17 (*Fay*), pp. 16-19; 1986 WL 25526 (Cal.St.Wat.Res.Bd.).)

The permitted discharge must be consistent with the antidegradation provision of 40 CFR section 131.12 and State Water Board Resolution 68-16. Resolution 68-16 and 40 CFR section 131.12 require that high quality waters be maintained unless degradation is justified based on specific findings. The Central Coast Water Board finds that the permitted discharges authorized by this Order are consistent with the antidegradation provisions of 40 CFR section 131.12 and State Water Board Resolution 68-16, as set forth herein.

4.4.2.1 Antidegradation Analysis

In this Order, a federal NPDES permit, compliance with the federal antidegradation policy requires consideration of the following. First, the Central Coast Water Board must ensure that "existing instream uses and the level of water quality necessary to protect the existing uses" are maintained and protected. See, 40 CFR § 131.12(a)(1). This provision has been interpreted to mean that, "[i]f baseline water quality is equal to or less than the quality as defined by the water quality objective, water quality shall be maintained or improved to a level that achieves the objectives." (State Water Board, Administrative Procedures Update, Antidegradation Policy Implementation for NPDES Permitting, 90-004 (APU 90-004), p. 4.) Furthermore, "[i]n those cases where potential water quality impairment associated with a thermal discharge is involved, the antidegradation policy and implementing method shall be consistent with section 316 of the" CWA. (40 CFR § 131.12(a)(4).)

Second, if the baseline quality of a waterbody "exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected" through the requirements of the Order unless the Central Coast Water Board makes findings that: (1) any lowering of the water quality is "necessary to accommodate important economic or social development in the area in which the waters are located," (2) "water quality adequate to protect existing uses fully" is ensured, and (3) "the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control" are achieved. 40 CFR § 131.12(a)(2). Under this second-tier review, the Central Coast Water Board may identify the waters for protection through the public process of a permitting action, as it is here. Before allowing any lowering of high-quality water, the Central Coast Water Board must conduct an analysis of alternatives that evaluates practicable alternatives that would prevent or lessen the degradation associated with the discharges permitted. In the context of 40 CFR § 131.12(a)(2)(ii), practicable means "technologically possible, able to be put into practice, and economically viable." 40 CFR § 131.3(n).

The Order must also comply with any requirements of State Water Board Resolution 68-16 beyond those imposed through incorporation of the federal

antidegradation policy. See *Fay,* Order WQ 86-17, p. 23, fn. 11. Resolution 68-16 requires findings that any lowering of water quality is (a) "consistent with the maximum benefit to the people of the State," that it (b) "will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies," and (c) that the discharge is subject to "waste discharge requirements which will result in the best practicable treatment or control of the discharge."[17]

4.4.2.1.1. No Antidegradation Analysis is Necessary Because Existing Water Quality Will Not Be Reduced as a Result of NPDES Permit Reissuance

A determination as to whether antidegradation findings are necessary must be made when issuing or reissuing an NPDES permit. (State Water Board Administrative Procedures Update (APU) 90-004, at p. 1.) According to APU 90-004, a key policy and guidance document for implementation of the antidegradation policies, if a "Regional Board has no reason to believe that existing water quality will be reduced due to the proposed action, no antidegradation analysis is required." (APU 90-004, p. 2.)

Here, the Central Coast Water Board has no reason to believe that existing water quality will be reduced due to permit renewal. The Facility began discharging in 1969 and began operating commercially in the mid-1980s.[18] The discharge at issue has been going on for decades, and this is not the first NPDES permit that has issued for the discharge. Based on the decades of water quality data and the facts that the Discharger's operations remain constant and that the makeup of the discharge has not changed substantially from the first time the discharge occurred, it is reasonable to conclude that the existing water quality will remain the same and will not be reduced as a result of issuing the permit. This conclusion is bolstered by the fact this Order carries over the majority of the effluent limits and the terms and conditions from the prior order, and, as specified in sections 4.2 and 4.3 of the Fact Sheet, adds additional effluent limitations, controls, special studies, and monitoring to ensure that water quality is protected.

To the extent that changes were made from the prior order, or that receiving water limits were largely removed, the Central Coast Water Board finds that any changes from Order 90-09 will not cause degradation or any reduction of

[17] State Water Board Resolution 68-16, Resolve 2. Best practicable treatment or control is not defined in Resolution 68-16; however, the State Water Board has evaluated what level of treatment or control is technically achievable using "best efforts." (See State Water Board Orders WQ 81-5 (City of Lompoc), WQ 82-5 (Chino Basin Municipal Water District), WQ 90-6 (Environmental Resources Protection Council).) A Questions and Answers document on Resolution 68-16 by the State Water Board states as follows: "To evaluate the best practicable treatment or control method, the discharger should compare the proposed method to existing proven technology; evaluate performance data, e.g. through treatability studies; compare alternative methods of treatment or control; and/or consider the method currently used by the discharger or similarly situated dischargers . . .The costs of the treatment or control should also be considered . . . ." (Questions and Answers, Resolution 68-16, State Water Board (Feb. 16, 1995), pp. 5-6.)

[18] https://www.pge.com/en/about/pge-systems/nuclear-power.html

water quality. Therefore, no antidegradation analysis need be conducted. The reasoning supporting this conclusion is set forth below.

4.4.2.1.1.1. Removal of Certain WQBELs Will Not Contribute to Degradation

As explained in section 4.4.1 above, several WQBELs established in Order 90-09 have been removed from this Order in accordance with 40 CFR section 122.44(d) and reasonable potential analyses procedures in the 2019 Ocean Plan. Specifically, Order 90-09 included WQBELs at Discharge Point 001 for arsenic, cadmium, copper, zinc, ammonia, and toxicity. but data analysis demonstrated there is no reasonable potential for those pollutants to cause or contribute to an exceedance of water quality objectives as a result of the discharge. Accordingly, removal of these WQBELs is not expected to cause a change in the chemical nature of the effluent discharge, impact beneficial uses, or lower existing receiving water quality. However, this Order requires monitoring for all of the pollutants for which WQBELs were removed, including chronic toxicity monitoring and TRE requirements. Should the monitoring demonstrate a need for effluent limitations in the future, the Order may be reopened and/or modified the next time that it is renewed, as provided in Order section 6.3.1.1. These provisions ensure that the Order is protective of existing water quality.

4.4.2.1.1.2. Any Changes in Discharger Operations and New Discharge Points in the Order Will Not Reduce Water Quality

Order 90-09 also included temperature limits applying to heat treatment at Discharge Point 001 and technology-based effluent limitations at Discharge Points 001I, 001K, 005, 006, 008, 009, 013, and 015. As described in Fact Sheet sections 4.2.3.3 and 4.3.6, the Discharger no longer uses heat treatment at the Facility,[19] and Discharge Points 001I, 001K, 005, 006, 008, 009, 013, and 015 are either no longer in service or are covered under the Industrial General Permit.[20] These are the only changes to the Discharger's operation. Based on the foregoing, the Central Coast Water Board finds that existing water quality is expected to be maintained. Taking discharge points out of service and/or covering discharges under a different NPDES permit will not cause a change to water quality.

This Order authorizes discharges from three new discharge points (Discharge Points 022, 026, and 027). As described in section 2.2 of this Fact Sheet, these discharges are intermittent, rarely occur, and consist primarily of excess seawater. All of these discharges occur within the vicinity of Intake Cove, and, under most conditions, the discharges are effectively redrawn into the intake. Effluent limitations are now applied at

[19] Heat treatment has been replaced with chlorine dosing, as described at Fact Sheet sections 4.2.4.3 and 4.3.6.
[20] State Water Board Order WQ 2014-0057-DWQ, *General Permit for Storm Water Discharges Associated with Industrial Activities*, as amended by Order WQ 2015-0122DWQ and Order WQ 2018-0028-DWQ.

these discharge points that are protective of water quality and will not reduce existing water quality.

4.4.2.1.1.3. Removal of Certain Receiving Water Limitations Will Not Contribute to Degradation

Receiving water limits have been largely removed from the Order in accordance with the U.S. Supreme Court's decision in *City and County of San Francisco, California v. Environmental Protection Agency* (2025) 604 U.S. 334. However, as set forth at length in the Fact Sheet, Section 5.1.1 and in Table F-22, the Central Coast Water Board finds that the removal of such limitations will not reduce existing water quality. The permit effluent limitations and prohibitions and controls, together with a robust monitoring and reporting program, special studies, and reopener provisions, ensure that existing water quality and water quality objectives will be protected. Accordingly, the removal of receiving water limitations complies with the federal and state antidegradation policies in this case.

For the reasons set forth above, the Central Coast Water Board finds that no antidegradation analysis is necessary. The limitations and conditions in this Order ensure maintenance of the existing quality of receiving waters and do not authorize increased rates of discharge or increased pollutant loading to the receiving water above those that were previously authorized by Order 90-09.

Assuming, however, that an antidegradation analysis is required, the Central Coast Water Board finds that a pollutant-by-pollutant antidegradation analysis is not necessary for this Order. Rather, as set forth below, a simple antidegradation analysis suffices.

4.4.2.1.2. Simple Antidegradation Analysis

APU 90-004 indicates that a waterbody-by-waterbody and pollutant-by-pollutant analysis is only required when conducting a "complete" antidegradation analysis; a complete analysis, in turn, is not required where a "Regional Board determines that the reduction of water quality will be spatially localized or limited with respect to the waterbody; e.g., confined to the mixing zone." (APU 90-004, at p. 2.) In addition, APU 90-004 makes it clear that a full, pollutant-by pollutant antidegradation analysis need not be performed if the Regional Board determines that the reduction in water quality is "temporally limited and will not result in any long-term deleterious effects on water quality." (Ibid.)

APU 90-004 does not provide guidance on the scope and content of a simple antidegradation analysis. Nor does it define the terms "spatially localized," "temporally limited," or "long term." Those terms must therefore be interpreted in the context of the types of discharges being permitted, the characteristics of the waterbody itself, and with deference to the best professional judgment of the Central Coast Water Board.

Turning first to the effects of the discharge, it is well documented that the thermal effects of the discharge, which has been continuous since at least the mid-1980s when both reactor units began commercial operation, have changed the ocean habitat and marine ecosystem near Discharge Point EFF-001 to Diablo Cove, because of the consistent, higher-than-average temperatures of the thermal discharge.[21] However, the Central Coast Water Board finds that any effects are spatially localized and confined to a particular area of the San Luis Obispo County coastline. Specifically, the impacts are limited to a defined area of the Pacific Ocean, including Intake Cove, Diablo Cove, and, to a lesser extent, a surrounding area where the discharges of the once-through cooling water occur.[22]

Similarly, the Central Coast Water Board finds that any effects of the thermal discharge are limited in time. Here, the discharge is expected to cease no later than October 30, 2030. (Cal. Water Code, section 13193.5; see, also SB 846 (2022), available at Bill Text: CA SB846 | 2021-2022 | Regular Session | Chaptered | LegiScan) and OTC Policy, at p. 18, n. 5.) It is expected that any reduction in water quality that has occurred will cease after the discharge terminates and that the native marine environment will return. *In re Jaffer, supra,* WQ 83-1 at p. 54, and references cited therein; see, also, Thermal Discharge Assessment Report (1982) at p. 1 and TEMP 1998 Report p. 5-19, 5-24. This temporal limitation is as short as practicable and it is in line with applicable legislative and statutory requirements pertaining to the operational longevity of the Facility.

Based on the foregoing, the Central Coast Water Board has determined that a simple antidegradation analysis is appropriate. The discharges permitted in the Order are consistent with the antidegradation provisions of 40 CFR section 131.12 and Resolution 68-16. The Central Coast Water Board's

[21] In 1988, the Discharger submitted the final *Thermal Effects Monitoring Program Report*, an 11-year study (TEMP, 1976-1988), prepared by Tenera Environmental Services. The TEMP report described the populations and communities of marine species in Diablo Cove before and after commercial operations of Diablo Canyon Power Plant began in 1985. This analysis found that the thermal discharge had produced observable changes, both increases and decreases in the abundance and the distribution of several species in Diablo Cove's intertidal and subtidal marine habitat, while the majority of the species had remained unaffected by the discharge. The report also found that the permitted temperature limits appeared to be protective of the cove's marine habitat, based on the operating data gathered to that date and the population responses of the habitat's species. In 1997, the Discharger submitted the *Thermal Effects Monitoring Program Analysis Report, Chapter 1* (1997 TEMP Chapter 1 Report), which documented additional adverse effects on plant and animal species within Diablo Cove and nearby areas

[22] At this time, the extent of the impacts to water quality based on temperature are well known and they occur mainly within the intertidal and shallow subtidal zone in Diablo Cove. (See, e.g., *Thermal Effects Monitoring Program Report*, an 11-year study (TEMP, 1976-1988), prepared by Tenera Environmental Services; PG&E's *Thermal Effects Monitoring Program Analysis Report, Chapter 1* (1997 TEMP Chapter 1 Report); and *In re Jaffer, supra*, at p. 54.) The extent of the habitat affected is best measured as a linear distance following the contours of the coastline. The linear distance affected in Diablo Cove is about 1.1 miles. Less-severe biological effects are also observed in the intertidal zone to the north, in Field's Cove, along an additional 0.73 miles.

conclusion that the terms and conditions of the Order are consistent with the antidegradation policies is based on the following analysis.

4.4.2.1.2.1 Baseline Water Quality

The first step in any antidegradation analysis is to determine what year to use for the baseline water quality. The baseline water quality considered in making the appropriate findings is the best quality of the water since 1968, the year of adoption of Resolution 68-16, or a lower level if that lower level was allowed through a permitting or other regulatory action, such as establishing a water quality objective, that was consistent with the federal and state antidegradation policies.[23]

Here, the appropriate baseline is not 1968, but rather 1990. There are several reasons for this. First, the appropriate baseline is determined by the date on which a policy establishing the level of water quality to protect was effective. (Resolution 68-16, Resolve 1.) The Central Coast Water Board's Basin Plan has been updated and amended several times since 1971, when it was first adopted, to include new or revised water quality objectives, and the same is true of the Ocean Plan. As explained below in section 4.4.2.1.2.3.2.3, the Ocean Plan was updated to include water quality objectives for tributyltin, a particular pollutant of concern for this antidegradation analysis, in 1990, around the same time as Order 90-09 was adopted. Similarly, the Thermal Plan was adopted later than 1968, in 1975. Therefore, 1968 is not the appropriate baseline.

Second, a permitting action "consistent with" the state and federal antidegradation policies, and which allowed degradation, may establish a new baseline consistent with the level of water quality achieved under that permit. (APU 90-004, at p. 4.) Here, the baseline water quality for the antidegradation analysis is 1990, the date the last NPDES permit issued. The quality of the waters, including any changes to water quality that occurred prior to 1990 because of the thermal discharges, has not changed substantially since that time.

4.4.2.1.2.2 Comparison of Water Quality to Water Quality Objectives Established to Protect Designated Beneficial Uses

The federal antidegradation policy sets forth two tier designations to describe water quality in the receiving water:

Tier 1 Designation: Existing instream water uses, and the level of water quality is necessary to protect the existing uses shall be maintained and protected. (40. C.F.R. §131.12 subd. (a)(1).

[23] APU 90-004, p.4; see also *Asociacion de Gente Unida por el Agua (AGUA) v. Central Valley Water Board* (2012) 210 Cal.App.4th 1255,1270. The baseline for the application of the state antidegradation policy is generally the highest water quality achieved since 1968, the year the policy was adopted. The baseline for application of the federal antidegradation policy is 1975, which is the date used in 40 CFR § 131.3(e) to define existing uses of a waterbody.

Tier 2 Designation: Where the quality of waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the state finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the state's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In allowing such degradation or lower water quality, the state shall ensure water quality adequate to protect existing uses fully. Further, the state shall ensure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control. (40 C.F.R. §131.12 subd. (a)(2).)

The applicable water quality objectives are set forth in the Ocean Plan, the Basin Plan, and the Thermal Plan. The tier designation is assigned on a pollutant-by-pollutant basis.[24] Extensive analysis of the decades of water quality data shows that there are only certain pollutants that could potentially affect the receiving water. These include mercury, nickel, tributyltin, and temperature.

However, there are well-documented biological effects caused by the Facility's thermal discharge, mainly within the intertidal and shallow subtidal marine habitat. The effects of the thermal discharge have stabilized, however, and new species have populated Diablo Cove since the Facility started operating commercially in the mid-1980s, due to consistent, warmer temperatures within the mixing zone. Accordingly, with respect to temperature, the Pacific Ocean is considered a Tier 1 receiving water.

With respect to all other pollutants of concern, the Pacific Ocean is considered a Tier 2 receiving water. As explained below, the Pacific Ocean is considered a Tier 2 water for nickel. With respect to tributyltin, it, too is discussed in the Tier 2 analysis, although it is unclear if the Facility's discharge or operations are contributing to any lowering of water quality for tributyltin. Finally, although a portion of the Pacific Ocean (Pacific Ocean, Pt. Buchon to Pt. San Luis) is identified on the 2024 303(d) list and draft 2026 303(d) list as impaired for mercury, no TMDLs apply to the discharge as of 2026. And there is no evidence that the Facility's discharge has contributed to any lowering of water quality with respect to mercury since 1990, the baseline here. Therefore, mercury is also discussed in the Tier 2 analysis.

4.4.2.1.2.3. Constituents of Concern That Could Potentially Affect Water Quality

[24] Baseline water quality is pollutant specific, not waterbody specific. (APU 90-004, at p. 4; *see, also,* State Water Board Order WQ 91-10 and State Water Board "Questions and Answers, Resolution 68-16, Feb. 16, 1995.)

4.4.2.1.2.3.1. Tier 1

4.4.2.1.2.3.1.1. Temperature

Since the Facility began operating commercially in the 1980s, there have been documented changes to the receiving water due to thermal discharges. However, the changes have stabilized since that time. The history of the changes to the area affected by the thermal discharges from the Facility, as well as the permits allowing the thermal discharge and the ultimate stabilization of the thermal discharge, is set forth below.

The Facility's first waste discharge requirement permit was issued in October 1969. The first NPDES permit was adopted in 1974_(Order 74-41). A subsequent NDPES permit was adopted in 1976 (Order 76-11) which established a thermal discharge prohibition until July of 1981, and heat related limits of a maximum discharge temperature increase of 25 degrees F, no more than a maximum increase in 22 degrees F for 12 hours in a calendar day and 24 hours in a calendar week as well as a 50 degrees F maximum during heat treatment. In January of 1982, Order 82-24 was adopted and retained the thermal prohibition until a Thermal Discharge Assessment Report and Alternatives Cooling Water System Report could be submitted. This report was submitted by April of 1982. In June of 1982, after extensive thermal data had been collected, the Central Coast Water Board adopted Order 82-54, regulating discharges from the Facility's two operating units.[25] Order 82-54 established numeric effluent limits for temperature based on the reasonable protection of beneficial uses from the Facility's heat discharge as described in PG&E's *Thermal Discharge Assessment Report* (TDAR, 1982).[26] The numeric effluent limits in Order 82-54 based on the TDAR included a maximum increase of temperature of 20 degrees Fahrenheit (F) over that of the intake except during heat treatment and not to exceed 100 degrees F.

In 1983, in response to several petitions for review of Order 82-54, the State Water Board considered whether the discharge of thermal wastes from the Facility would alter the quality of the waters in Diablo Cove. (*In re Jaffer*, State Water Board Order WQ 83-1, at pp. 45-56.) In *Jaffer,* the State Water Board examined a "vast amount of data" generated by the Discharger "to define the thermal impact of the plant under steady state, two-unit operations," including but not limited to "extensive plume dispersal model studies and thermal stress studies on marine life to predict thermal impacts" from the discharge. (*Id.*, at p. 48, p. 49.) The State Water Board concluded that the thermal discharges would in fact

[25] The first waste discharge requirements (WDRs) issued for the Facility were in 1969, and subsequent NPDES orders were issued in 1974 and 1976. (See, *In re Jaffer*, Order WQ 83-1, at pp. 3-4, available at https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/1983/wq1983_01.pdf.)
[26] The TDAR predicted significant alteration of the quality of waters in Diablo Cove and reduction in the abundance of several species (pg. 4-14 through 4-47).

"significantly alter the quality of the waters in Diablo Cove." (*Id.,* at p. 52.) However, the State Water Board also found that the "alteration of water quality" was "not unreasonable."[27] (*Id.*) The State Water Board concluded that the limits and provisions in the Central Coast Water Board's Order 82-54 regulating heat discharges were proper and that the thermal effects study required as a part of Order 82-54 and related monitoring would provide the Central Coast Water Board with additional data it needed to determine whether the Discharger should take "remedial action" concerning its thermal discharges.

Following *In re Jaffer,* the next NPDES permit issued by the Central Coast Water Board for discharges from Diablo Canyon Power Plant was Order 85-101. Order 85-101 increased the numeric effluent limits for temperature to a daily average limit of not more than 22 degrees F above the natural temperature of the intake water. These increases in effluent limits for temperature were due to additional operational information obtained that indicated temperature during transient conditions such as load rejection, steam dump, generator trip, and the operation of engineered safety features could cause the effluent to exceed 20 degrees F and might reach 22 degrees F. Additionally the Central Coast Water Board required PG&E to submit the results of the Thermal Effects Monitoring Program Report to supplement the 1982 TDAR and provide assurance that the new limits were sufficient to protect beneficial uses.

In 1988, the Discharger submitted the final *Thermal Effects Monitoring Program Report*, an 11-year study (TEMP, 1976-1988), prepared by Tenera Environmental Services. The TEMP described the populations and communities of marine species in Diablo Cove before and after commercial operations of Diablo Canyon Power Plant began in 1985. This analysis found that the thermal discharge had produced observable changes, both statistically significant increases and decreases in the abundance and the distribution of several species in Diablo Cove's intertidal and subtidal marine habitat, while most of the species had remained unaffected by the discharge. The report also found that the permitted temperature limits appeared to be protective of the cove's

[27] Among other things, the State Water Board based this conclusion on Legislative pronouncements in Water Code section 13000 ("waters of the state shall be regulated to attain the highest water quality which is reasonable, considering all demands being made…) and 13241 (recognizing that water quality may be changed to some degree without "unreasonably affecting beneficial uses"); on the fact that Diablo Cove was not (and is not) an area of special biological significance (ASBS); on the thermal discharge effluent limits in the Thermal Plan; and on the observation that "any adverse impacts caused by the thermal discharge would be reversable. The discharge occurs at about the midpoint of a 12-mile reef. Reestablishment of the cove to its natural state would be possible in a relatively short period of time." (*Id.,* at p. 54.) The State Water Board also observed that a thermal effects study was ongoing and that any alternatives to the once-through cooling system the Facility uses are "very costly and in some cases, have additional negative environmental impacts." (*Id.,* at p. 55).

marine habitat, based on the operating data gathered to that date and the population responses of the habitat's species.

Thereafter, in 1990, the Central Coast Water Board issued Order 90-09. Order 90-09 retained the 85-101 effluent limits for temperature: a daily average limit of not more than 22 degrees F above the natural temperature of the intake, with an allowance of up to 25 degrees F above the natural temperature of the intake during heat treatments.

In 1997, the Discharger submitted the *Thermal Effects Monitoring Program Analysis Report, Chapter 1* (1997 TEMP Chapter 1 Report) to the Central Coast Water Board. The 1997 TEMP Chapter 1 Report documented adverse impacts on a wide variety of plant and animal species within Diablo Cove and in areas nearby as a result of the thermal discharges. The extent of the most significant and consistent biological effects caused by the Facility's thermal discharge occurs mainly within the intertidal and shallow subtidal marine habitat.

Following protracted litigation and analysis of data from prior decades, the San Luis Obispo County Superior Court approved a Consent Judgment in 2021 establishing that the effluent limitation of 22 degrees F increase over the natural temperature of the intake constitutes compliance with (1) the Thermal Plan's narrative water quality standard for existing discharges into coastal waters and (2) the receiving water limits in Order 90-09 and its General Permit Conditions related to the thermal discharges. (Consent Judgment, p. 6, ¶ 7.4; see, also, discussion in Fact Sheet section 4.3.6.) Data shows that the temperature of the thermal discharges has stabilized and that, since 2016, there have been no violations of the temperature effluent limits in the Facility's permit.

4.4.2.1.2.3.2. Tier 2: Mercury, Nickel and Tributyltin

4.4.2.1.2.3.2.1. Mercury

Using 1990 as the baseline, the Pacific Ocean is considered high quality with respect to mercury at the point of discharge here.[28] Indeed, mercury objectives were adopted as part of the 1988 Ocean Plan. Analysis of Facility data at discharge point 001 shows that there have not been any exceedances for mercury in the last five years and that the effluent limitation for mercury implements and protects the water quality objective. Thus, no degradation is expected to occur with respect to mercury as a result of the discharge.

4.4.2.1.2.3.2.2. Nickel

[28] The Pacific Ocean was only recently proposed for listing on the CWA list of impaired waters (2026 303(d) List). Data analysis from 1982-1992 showed only two exceedances in fish tissue for mercury at the relevant sampling point near Diablo Cove.

The Pacific Ocean is considered a high-quality water with respect to nickel. Order 90-09 established six-month median and daily and instantaneous maximum effluent limits for nickel, based on a dilution ratio of 4.1:1. Between 1987 and 2024, the Facility's discharge at Discharge Point 001 had a mean effluent concentration for nickel of 10.7 micrograms per liter and did not exceed the six-month median, daily maximum, or instantaneous maximum effluent limits. However, intake water quality data at INF-001, used to represent ambient receiving water data, shows frequent exceedances of the six-month median water quality objective for nickel established in table 3 of the Ocean Plan during this same time frame, which suggests some degradation may have occurred locally.

4.4.2.1.2.3.2.3. Tributyltin

The Ocean Plan was updated in March 1990, and at that time a water quality objective was included for tributyltin. Order 90-09 was adopted in May 1990, shortly after the Ocean Plan was updated, and did not establish effluent limits for tributyltin, nor were there requirements to sample for tributyltin. Due to a lack of data, it is unclear whether the Pacific Ocean is a high-quality water with respect to tributyltin. However, for the purposes of this analysis, the Central Coast Water Board assumes, without deciding, that it is.

During the permit renewal process, sampling did occur for water quality objectives not included in the prior Order, including tributyltin, on January 28, 2025, at Discharge Points 003 and 004, which both discharge into the intake cove. Data for intake water sampled at the same event showed concentrations above the water quality objective for tributyltin. As discussed in the Fact Sheet section 4.3.3, the reasonable potential analysis conducted on water quality data collected in January 2025 resulted in the need to establish water quality based effluent limits for tributyltin.

For most pollutant analyses, intake is assumed to represent natural receiving water quality conditions. However, because this Facility does not use tributyltin in its operating processes, it is unclear whether the Facility is the source of the tributyltin. Accordingly, the Order establishes a compliance schedule that the Discharger must meet to study sources of tributyltin and—if the source is found to be due to the Facility's discharge or other operations—identify corrective actions to comply with the newly established tributyltin effluent limits.

4.4.2.2. Antidegradation Findings- Federal Antidegradation Policy

4.4.2.2.1. Tier 1 Waters

For receiving waters that are not high-quality waters, or Tier 1 waters, the federal antidegradation policy requires that regulatory actions ensure that

existing instream uses and the level of water quality necessary to protect the existing uses are maintained and protected. (40 CFR § 131.12(a)(1).) The Central Coast Water Board finds that the Order ensures that existing instream (beneficial) uses and the level of water quality necessary to protect the existing uses are maintained and protected by the Order. This is accomplished through effluent limitations, a robust monitoring program, and special studies with reopeners to allow for permit modifications to add requirements prior to the expiration date of this Order. (See, sections 4.1 and 6.3.1 and Attachment E.)

With respect to temperature, the same effluent limitation as that which was approved in the Consent Judgment, and which was in Order 90-09, has been incorporated into this Order. Moreover, the Facility's thermal discharges have mostly stabilized, and since 2016, the Facility has not exceeded the effluent limitation of 22 degrees F increase over the natural temperature of the intake. (see Fact Sheet section 2.5). Any changes to the marine environment have been mostly stable as well, and the temperature effluent limitations are consistent with the Thermal Plan. Accordingly, the Central Coast Water Board finds that the existing instream uses and the level of water quality necessary to protect the existing uses are being maintained and protected. (40 CFR § 131.12(a)(1).) Thus, the federal antidegradation policy is satisfied here for Tier 1 waters.

4.4.2.2.2. Tier 2 Waters

For high quality waters, or Tier 2 waters, the federal antidegradation policy requires that before any lowering of high water quality pursuant to section 131.2(a)(2) the State must find, "after an analysis of alternatives,[29] that such lowering is necessary to accommodate important economic or social development in the area in which the waters are located." (40 CFR section 131.2, subd. (a)(2)(ii).) As explained below, no such analysis is necessary.

With respect to nickel, the Order revises the minimum dilution ratio from 4.1: to 2.9:1 and establishes more stringent six-month median and daily and instantaneous maximum effluent limits. As a result, the Central Coast Water Board expects that any degradation that may have occurred as a result of the discharge will not continue in the future. The Central Coast Water Board finds that, at this time, there is no evidence that high-quality waters are being lowered (or will be lowered) as a result of the discharge of nickel. As set forth above, there are adequate controls to ensure that there are no effluent limit violations, and new limitations have been established, too, to ensure that there is no degradation in the future. Accordingly, no alternatives analysis is necessary for nickel.

[29] "The analysis of alternatives shall evaluate a range of practicable alternatives that would prevent or lessen the degradation associated with the proposed activity. When the analysis of alternatives identifies one or more practicable alternatives, the State shall only find that a lowering is necessary if one such alternative is selected for implementation." 40 C.F.R. § 131.12 subd. (a)(2)(ii).

With respect to mercury, the Central Coast Water Board finds that no degradation is occurring. Should a total maximum daily load (TMDL) be enacted for mercury and a waste load allocation be assigned to the Facility in the future, that TMDL will be implemented in the permit as soon as possible. (See, Order section 6.3.1.1). The mercury effluent limitation will protect existing instream water uses and the level of water quality. Again, no alternatives analysis is necessary for mercury.

With respect to tributyltin, any lowering of water quality that might be occurring as a result of the discharge or Facility operations will be corrected in the shortest amount of time possible. The tributyltin water quality objectives were not established when the Central Coast Water Board adopted the last NPDES permit for the Facility, and the tributyltin effluent limitations in the Order are a new requirement. The antidegradation policies do not explicitly or implicitly override the authority and discretion the Clean Water Act and the Water Code grant to the Central Coast Water Board as to how it structures a permit to ensure water quality necessary to protect beneficial uses. The law does not require immediate restoration of impaired waterbodies, nor does it require an immediate prohibition of discharges that contribute to an exceedance of water quality objectives in the waterbody. The federal regulations and state laws that govern NPDES permits both recognize that immediate and consistent compliance with new or more stringent permit requirements may not be possible and that delayed compliance may be appropriate. Federal regulations at 40 CFR section 122.47 allow NPDES permits to have compliance schedules in certain circumstances. Similarly, Water Code section 13263, subdivision (c), authorizes the Central Coast Water Board to include a time schedule for achieving water quality objectives in waste discharge requirements, and Water Code section 13385, subdivision (j)(3) addresses time schedules available to NPDES permitted discharges. As such, no unreasonable degradation will occur if the Facility is in fact the source of the tributyltin, and no alternatives analysis is necessary for tributyltin, either. The antidegradation policy is therefore satisfied with respect to Tier 2 waters.

4.4.2.3. Antidegradation Findings: Resolution 68-16

4.4.2.3.1. Any Lowering of Water Quality Is Consistent with the Maximum Benefit to the People of the State

The Central Coast Water Board performed a socioeconomic analysis to evaluate whether degradation of Pacific Ocean water quality due to the thermal discharge is in the maximum benefit to the people of the state. This analysis is confined to the thermal discharges because, as set forth above, the thermal discharge has impacted receiving waters.

The Facility is California’s only nuclear power plant and is a key part of maintaining diversity across California’s energy generation portfolio. This diversity helps enhance grid reliability and resilience, ensure long-term

affordability, and strengthen energy independence and security. The Facility generates approximately 18,000 gigawatt hours per year, which is nearly 9% of the state's total in-state power generation.[30] This nuclear generation is roughly 15% of the state's total non-greenhouse gas and renewable power generation. These findings were included in the 2022 Senate Bill 846, motivating the extension of powerplant operations past its previous retirement dates.[31] The Facility is thus a vital resource for California's strategy to meet targets set in 2018 Senate Bill 100, particularly the milestones of generating 50% of total retail sales of electricity in California from eligible renewable energy resources by the end of 2026 and 60% by the end of 2030.[32]

The Facility also provides significant economic benefits to both San Luis Obispo County and the state as a whole. DCPP employs about 1,500 workers, making it one of the largest employers in the county.[33] The plant contributes nearly one billion dollars annually to California's economy,[34] and continuing operation has been forecast to further save energy customers billions of dollars compared to costs of alternative energy.[35]

Based on the foregoing, the Central Coast Water Board finds that any lowering of water quality that has occurred as a result of the Facility's thermal discharges to the Pacific Ocean is consistent with the maximum benefit to the people of the state.

4.4.2.3.2. Any Lowering of Water Quality Will not Unreasonably Affect Present and Anticipated Beneficial Uses of Waters and Will Not Result in Water Quality Less Than That Described in Applicable Policies

As explained above in section 4.4.2.1.2.3, any lowering of water quality occurred prior to the time this Order issued, and it has since been determined that the effluent limitations in the Order are consistent with the Thermal Plan's narrative water quality objective. Accordingly, the Central Coast Water Board finds that any lowering of water quality has not (and will not) unreasonably affected present and anticipated beneficial uses, and it will not (and has not) result in water quality less than that described in applicable policies.

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[30] *2025 Total System Electric Generation - The Year in Review*, California Energy Commission, https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2024-total-system-electric-generation.
[31] Bill Text: CA SB846 | 2021-2022 | Regular Session | Chaptered | LegiScan
[32] *Id; see, also,* Cal. Pub. Util. Code section 454.52.
[33] *Major Employers in San Luis Obispo County*, State of California Employment Development Department https://labormarketinfo.edd.ca.gov/majorer/countymajorer.asp?CountyCode=000079.
[34] Mayeda and Riener, 2013. *Economic Benefits of Diablo Canyon Power Plant*. Cal Poly Orfalea College of Business and Pacific Gas and Electric Company.
[35] Aborn et al., 2021. A*n Assessment of the Diablo Canyon Nuclear Plant for Zero-Carbon Electricity, Desalination, and Hydrogen Production*. LucidCatalyst LLC, Stanford University, and Massachusetts Institute of Technology; Pacific Gas and Electric Company, 2025. *Diablo Canyon Power Plant 2026 Cost Recover Forecast to Support Operations as Directed by the State to Ensure Electric Reliability and to Reduce Greenhouse Gas Emissions for All Californians.*

4.4.2.3.3. The Discharge Is Subject to Best Practicable Treatment and Control

Best practicable treatment or control is not defined in Resolution 68-16; however, the State Water Board has evaluated what level of treatment or control is technically achievable using "best efforts." (See State Water Board Orders WQ 81-5 (City of Lompoc), WQ 82-5 (Chino Basin Municipal Water District), WQ 90-6 (Environmental Resources Protection Council).) A State Water Board Questions and Answers document on Resolution 68-16 states as follows: "To evaluate the best practicable treatment or control method, the discharger should compare the proposed method to existing proven technology; evaluate performance data, e.g. through treatability studies; compare alternative methods of treatment or control; and/or consider the method currently used by the discharger or similarly situated dischargers.... The costs of the treatment or control should also be considered...." (Questions and Answers, Resolution 68-16, State Water Board (Feb. 16, 1995), pp. 5-6.)

Here, the Central Coast Water Board finds that the Order achieves the best practicable treatment or controls for all pollutants. With respect to nickel, mercury, and tributyltin, the best practicable treatment or control includes effluent limitations and monitoring. Specifically for nickel, best practical treatment or control includes both technology- and water-quality based effluent limits established in this Order accompanied by routine monitoring for compliance determination. For mercury and tributyltin, the best practical treatment or control are the water quality based effluent limits established in this Order, accompanied by routine monitoring for compliance determination. In the future, additional controls may be necessary for tributyltin, and if that is the case, a reopener provision is included in this Order to allow for permit modifications to establish any such controls.[36]

With respect to the thermal discharge and the temperature effluent limitations, in 2012 and 2014, an independent consultant conducted an evaluation of technology alternatives for feasibility to comply with the OTC Policy and US

[36] For the same reasons, all of the controls on all other constituents in the Order—and the discharge as a whole—are meeting the BPTC standards. All effluent limitations were established after a thorough evaluation of performance data and known treatment standards, and costs have been considered accordingly, either in this Order or in the establishment of effluent limitations generally. See, e.g., Fact Sheet section 8, regarding Water Code section 13241.

NRC regulations.[37] [38] The evaluation, which included a nuclear-specific assessment and cost evaluations for alternatives for the Facility, concluded that an alternative to the existing once-through cooling system was neither practicable nor technically feasible. And as set forth in detail above, the temperature effluent limitations are consistent with the Thermal Plan. Therefore, the Facility's current cooling system and temperature effluent limitations meet the best practical treatment or control requirement.

4.4.2.4. Satisfaction of 40 CFR section 131.12(a)(4)

The Central Coast Water Board finds that any lowering of water quality that could potentially result from the thermal discharge is consistent with CWA section 316 (see, 40 CFR § 131.12 subd. (a)(4).) Section 316(a) does not apply here; no variance is necessary since the discharge complies with all water quality objectives. As for section 316(b), the discharge complies with and implements the State Water Board's OTC Policy, as set forth in Fact Sheet sections 3.3.8 and 6.2.6.1 (see, also, discussion on temperature, *supra*, at Fact Sheet section 4.3.6).

4.4.3. No Unreasonable Degradation of Marine Environment

Section 403 of the CWA and its implementing regulations, specifically 40 CFR Part 125, subpart M (Ocean Discharge Criteria) establish guidelines for issuance of NPDES permits for the discharge of pollutants from a point source into the territorial seas, the contiguous zone, and the oceans. (40 CFR section 125.120.) 40 CFR section 125.122 requires a determination of whether a discharge will

[37]Bechtel Power Corporation, *Independent Third-Party Final Technologies Assessment for the Alternative Cooling Technologies or Modifications to the Existing Once-Through Cooling System for Diablo Canyon Power Plant, 2014.* This report describes the findings of the second phase of an assessment of the viability of the technologies noted in the Scope of Work Report prepared for the Diablo Canyon Power Plant (DCPP) by the Nuclear Review Committee to Oversee Special Studies for the Nuclear Fueled Power Plants Using Once-through Cooling and dated November 7, 2011. The report is in support of the Nuclear Review Committee's initiative to identify strategies to implement the California Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling. This strategy would comply with the California Once-Through-Cooling Policy. The Phase 1 report, "Independent Third-Party Interim Technical Assessment for the Alternative Cooling Technologies to the Existing Once-Through Cooling System for Diablo Canyon Power Plant," was issued on November 5, 2012. (*Id.,* p. 1.) The Phase 1 report evaluated technologies for feasibility and reviewed them without regard for cost. (*Id.*, at p.1.) The Phase 2 report included the nuclear-specific assessment and consideration of costs for relevant technologies, among other things. (*Id.,* at pp. 1-16.)

[38] See, NRC regulations at 10 CFR 50.59 (describes the review that is necessary to determine whether a change, test, or experiment in a licensed nuclear power plant must be approved by the USNRC before being implemented). This regulation is important for a technological feasibility analysis. "10 CFR 50.59 allows the licensee to make changes to a plant or its procedures, or to conduct tests or experiments, without prior USNRC approval if the proposed activity does not require a change to the Technical Specifications (TSs) and does not significantly change analyses or their conclusions as documented in the Final Safety Analysis Report Updated (FSARU). This provides assurance that the change, test, or experiment would not adversely affect the ability to safely shut down the plant, to maintain the plant in a safe shutdown condition, and to ensure the ability to maintain offsite radiological consequences of an accident within the limits of 10 CFR Part 100." 2014 Bechtel report, supra, at p. 19, and p. 26.

cause unreasonable degradation of the marine environment. The Central Coast Water Board is treating the discharge as subject to the criteria set forth therein.

Pursuant to 40 CFR section 125.122 (b), discharges in compliance with state water quality standards shall be presumed not to cause unreasonable degradation of the marine environment. For the reasons set forth in Fact Sheet sections 4.1-4.5, and 5.1 and Table F-21, the Central Coast Water Board finds this presumption applies and that the discharge does not cause unreasonable degradation of the marine environment.

4.4.4. Stringency of Requirements for Individual Pollutants

This Order contains both technology-based effluent limitations and WQBELs for individual pollutants. The technology-based effluent limitations consist of restrictions on TSS, oil and grease, copper, iron, PCBs, settleable solids, BOD_5, and pH. Restrictions on these pollutants are discussed in section 4.2 of this Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum applicable federal technology-based requirements. These limitations are not more stringent than required by the CWA.

The WQBELs have been derived to implement WQOs that protect beneficial uses. Both the beneficial uses and the WQOs have been approved pursuant to federal law and are the applicable federal water quality standards. The procedures for calculating the individual WQBELs are based on the Ocean Plan, which was approved by USEPA on February 14, 2006, and has since been further amended. All beneficial uses and WQOs contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any WQOs and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 CFR section 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

4.5. Interim Effluent Limitations

The Discharger is subject to compliance schedules for the parameters listed in Table 9 and as described further in section 6.2.7 of this Fact Sheet. Since compliance schedules exceed one year, the Order includes interim effluent limitations.

4.6. Land Discharge Specifications – Not Applicable

4.7. Recycling Specifications – Not Applicable

5. RATIONALE FOR RECEIVING WATER LIMITATIONS

5.1. Surface Water

5.1.1 Review of Receiving Water Limitations

This Order removes almost all generalized receiving water limitations contained in the Discharger's prior waste discharge requirements that made the Discharger responsible for the quality of the water in the body of water into which the permittee discharges pollutants, without specifying specific requirements (e.g., effluent limitations) or other actions the Discharger must take that apply at or before the discharge point. The Central Coast Water Board took this action to address the U.S. Supreme Court's decision in *City and County of San Francisco, California v. Environmental Protection Agency* (2025) 145 S.Ct. 704, holding that NPDES permits issued by the U.S. EPA may not include end result requirements—provisions that do not spell out what a permittee must do or refrain from doing; rather, they make a permittee responsible for the quality of the water in the body of water into which the permittee discharges pollutants.[39]

Following the removal of the majority of the generalized receiving water limitations, the Central Coast Water Board reviewed the remaining permit requirements and concluded that a prohibition on the discharge of trash, a prohibition on the discharge of radioactive waste that causes marine life degradation, and additional monitoring requirements, including but not limited to wastewater characterization monitoring of pollutants in Table 3 of the Ocean Plan in the intake and effluent during the permit term to inform a determination of whether additional effluent limitations and controls are necessary to meet water quality standards in the future. In addition, the Central Coast Water Board has determined that, in some cases, special studies are necessary to determine whether the discharge meets water quality standards. Should monitoring data or the special studies indicate the need for additional pollutant controls or provisions, prohibitions, and/or effluent limitations, this NPDES permit contains a general re-opener provision that allows the Central Coast Water Board to amend the permit to include them to ensure water quality objectives are met.

Below in Table F-21 is a summary of the specific considerations for the removal of receiving water limitations pursuant to the decision in *CCSF* and any additional monitoring requirements and/or prohibitions or effluent limitations that were added to ensure the protection of water quality in light of removal of certain receiving water limitations.

Furthermore, Table F-22 includes other applicable water quality objectives in the Ocean Plan and the Basin Plan that apply to the discharge and a discussion of whether and why those objectives were translated to WQBELs or whether additional monitoring or prohibitions were added to ensure that water quality and beneficial uses are protected following the *CCSF* decision.

Finally, the only receiving water limitation included in this permit is set forth in Order subsection 5.1. Subsection 5.1 maintains, as a matter of state law, the

[39] While the Central Coast Water Board removed most of the generalized receiving water limitations in furtherance of the U.S. Supreme Court's decision interpreting the Clean Water Act's NPDES requirements, the Central Coast Water Board may decide in the future to include similar requirements as a matter of state authority.

requirement in Order 90-09 that the natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption shall not be altered as a result of the discharge. The Central Coast Water Board has maintained this requirement as a state law requirement to implement Water Code section 13263, which in turn requires the implementation of any relevant water quality plans, in this case the Ocean Plan, when issuing waste discharge requirements. The U.S. Supreme Court's decision in *CCSF* did not interpret the Water Code. Further, there is no provision of the Water Code analogous to the NPDES permit shield that was the basis for the U.S. Supreme Court's decision, and the Porter-Cologne Water Quality Control Act does not share the legislative history of the federal Clean Water Act. Therefore, this Order maintains the restriction in subsection 5.1 to continue the protections for taste and odor as a matter of state law.

Table F-21. Summary of Receiving Water Limitations Removed or Omitted

Item	Source	Receiving Water Limitations to be Removed	Action Taken and Rationale	Additional Monitoring
1	Order 90-09 Section C.1. and Ocean Plan Section II.C.1,	Floating particulates and oil and grease shall not be visible.	This permit contains effluent limits for oil and grease and suspended solids and a prohibition on the discharge of trash for all discharge points. As a result, this water quality objective will likely be achieved without additional requirements. To ensure that this is the case and to ensure water quality is protected, additional monitoring is required.	Additional visual monitoring of the receiving waters near discharge points for visible trash, foam, films, sheens or coatings is required. The Discharger is required to conduct a sea foam study (see, section 6.3.2.3. of the Order). Following review of the sea foam study, the Central Coast Water Board may require the Discharger to develop and conduct a foam monitoring program to further control floating particulates, oil, and grease. If necessary, the Central Coast Water Board may reopen the Order to require additional effluent limitations based on the results of all relevant monitoring and the sea foam study.
2	Order 90-09 Section C.2. and Ocean Plan Section II.C.2	The discharge of waste shall not cause aesthetically undesirable discoloration of the ocean surface.	The color of water can be influenced by suspended and dissolved particles. Water body coloration can be attributed to several natural and artificial causes, including elevated	Additional visual monitoring for receiving waters near discharge points for visible discoloration of receiving water will be conducted weekly. A special study is required as part of this permit, to determine the

Item	Source	Receiving Water Limitations to be Removed	Action Taken and Rationale	Additional Monitoring
			organic activity with algal growth and the presence of soluble minerals.[40] A prohibition on trash and effluent limits have been established at Discharge Points 001, 003, and 004 for substances that may cause or contribute discoloration of the ocean's surface including: dissolved metals, organic compounds, and oil and grease. The remaining Discharge Points 002, 016, 017, 022, 026, and 027 primarily consist of return raw seawater without any extensive contact with treatment processes that could cause or contribute to aesthetic discoloration in the discharge and thus the ocean surface. Based on the data available and the nature of the discharge it is likely that this water quality objective will be achieved without additional requirements.	effects of sea foam on the discoloration of the ocean surface. See, section 6.3.2.3. of this Order. If necessary, the Central Coast Water Board may reopen the Order to require additional effluent limitations based on the results of all relevant monitoring and the sea foam study.

[40] State Water Board *Color of Water Fact Sheet* 3.1.5.9, https://www.waterboards.ca.gov/water_issues/programs/swamp/docs/cwt/guidance/3159.pdf

Item	Source	Receiving Water Limitations to be Removed	Action Taken and Rationale	Additional Monitoring
			To ensure that this is the case and to ensure that water quality is protected, additional monitoring is required.	
3	Order 90-09 Section C.3. and Ocean Plan Section II.C.3	Natural light shall not be significantly reduced at any point outside the initial dilution zone as the result of the discharge of waste.	The reduction of light in water bodies can often be attributed to the diffusion of light from suspended particles in the water, often measured as turbidity.[41] There are many potential contributing factors to the reduction of natural light at the facility's discharge locations including: turbulence of the discharge, foam, suspension of sediment from the intake, oceanic conditions or pollutants attributed the quality of the discharge from industrial activities itself. These factors may not necessarily be contributing to natural light reduction at points outside of the initial dilution zone. Where applicable, effluent limits for total suspended solids oil and grease have been established in this Order	Additional monitoring for visible trash, turbidity, TSS, foam, films, sheens, or coatings has been added to all of the discharge points. A special study is required as part of this permit to determine the effects of sea foam on the reduction of natural light of the ocean surface. See section 6.3.2.3. of this Order. If necessary, the Central Coast Water Board may reopen the Order to require additional effluent limitations based on the results of all relevant monitoring and the sea foam study.

[41] State Water Board *Turbidity Fact Sheet* 3.1.5.9, https://www.waterboards.ca.gov/water_issues/programs/swamp/docs/cwt/guidance/3150en.pdf

Item	Source	Receiving Water Limitations to be Removed	Action Taken and Rationale	Additional Monitoring
			for in-plant waste streams and Discharge points. However, ensure that water quality is protected, additional monitoring is required.	
4	Order 90-09 Section C.4. and Ocean Plan Section II.C.4	The rate of deposition of inert solids and the characteristics of inert solids in ocean sediments shall not be changed such that benthic communities are degraded.	Sources of inert solids are likely to be associated with non-reactive sediments and can be measured as a combination of suspended solids, settleable solids, and turbidity.[42] The industrial activities associated with the Facility are not likely to contribute inert solids or sediments in the ocean; however, the suspension of solids from intake to the discharge, and turbulence of the discharge itself may be a factor in the rate of deposition of solids. To ensure water quality is protected, additional monitoring is required.	Additional monitoring has been added at all discharge points for turbidity, suspended and settleable solids. Additional monitoring for sediment deposition observations has been added to the Discharger's receiving water monitoring program along with continued ecological monitoring of intertidal benthic community organisms. If necessary, the Central Coast Water Board may reopen the Order to require additional effluent limitations based on the results of all relevant monitoring.
5	Order 90-09 Section C.5. and Ocean Plan Section II.D.1	The dissolved oxygen concentration shall not at any time be	The most common causes of dissolved oxygen depression in water can result from increases in water	A special study will be conducted as described in Section 6.3.2.4. of this Order to characterize dissolved oxygen in the Facility's intake

[42] State Water Board *Sediment Fact Sheet* 3.6.1.0, https://www.waterboards.ca.gov/water_issues/programs/swamp/docs/cwt/guidance/3610.pdf

Item	Source	Receiving Water Limitations to be Removed	Action Taken and Rationale	Additional Monitoring
	Chemical Characteristics	depressed more than 10 percent from that which occurs naturally, as the result of the discharge of oxygen-demanding waste materials.	temperature, algal blooms, and organic waste.[43] As discussed in subsequent items 9 and 10 of this table, discharges associated with this facility are not likely to be major contributors of organic or nutrient materials. Therefore, the discharges are not likely to contain high levels of organic and nutrient materials that can cause or contribute to dissolved oxygen depression in the discharge and thus receiving water. Discharge Point 001 contains elevated temperatures, which can result in a dissolved oxygen depression; however, this may be offset by the turbulence and aeration associated with the outfall structure. Discharge Points 002, 003, 004, 016, 017, 022, 026, and 027 primarily consist of return raw seawater without any extensive contact with treatment processes that can cause or	water, effluent, and receiving water to determine if new water quality based effluent limits and associated monitoring are necessary to ensure water quality objectives are protected. If necessary, the Central Coast Water Board may reopen the Order to require additional effluent limitations.

[43] State Water Board *Dissolved Oxygen Fact Sheet* 3.1.1.0, https://www.waterboards.ca.gov/water_issues/programs/swamp/docs/cwt/guidance/3110en.pdf

Item	Source	Receiving Water Limitations to be Removed	Action Taken and Rationale	Additional Monitoring
			contribute to the dissolved oxygen depression in the discharger and thus the receiving water. No data exists to perform a reasonable potential analysis for the discharge points. Although the nature of the discharges indicates that it is unlikely this water quality objective will be violated, to ensure that this is the case, monitoring and a special study for dissolved oxygen are required.	
6	Order 90-09 Section C.6. and Ocean Plan Section II.D.2 Chemical Characteristics	pH shall not be changed at any time more than 0.2 units from that which occurs naturally.	Based on Fact Sheet sections 4.2.3.2. and 4.3.6., it is probable that this water quality objective will be achieved without the need for additional effluent limitations. To ensure that this is the case and that water quality is protected, additional monitoring is required.	Additional monitoring will be conducted at both intake and all discharge points to ensure water quality objectives are not exceeded.
7	Order 90-09 Section C.7. & Ocean Plan Section II.D.3 Chemical Characteristics	Dissolved sulfide concentration of waters in and near sediments shall not be significantly increased above that present under natural conditions.	Sulfide data from Discharge Points 001, 003, and 004 did not include any detected values, which demonstrates that sulfides will not increase receiving water or sediment concentrations. Therefore, there is no reasonable potential that the water quality objective will be violated.	Additional monitoring will be conducted at both intake and at all discharge points to ensure water quality objectives are not exceeded.

Item	Source	Receiving Water Limitations to be Removed	Action Taken and Rationale	Additional Monitoring
			Remaining Discharge Points 002, 016, 017, 022, 026, and 027 primarily consist of return of raw seawater without any extensive contact with treatment processes that can cause or contribute to sulfides in the discharge and thus receiving water. Due to the nature of the discharge and existing data collected from Discharge Points 001, 003, and 004, it is probable that this water quality objective will be achieved without the need for additional effluent limitations. To ensure that this is the case and that water quality is protected, additional monitoring is required.	
8	Order 90-09 Section C.8. and Ocean Plan Section II.D.4	The concentration of substances set forth in Table 3 of the Ocean Plan in marine sediments shall not be increased to levels which would degrade indigenous biota.	For Discharge Points 001, 003, and 004 where data existed, an RPA was conducted and effluent limits established for those water quality objectives established in Table 3 of the Ocean Plan for the protection of Marine life. For the other remaining discharge points that had no monitoring data available, additional new monitoring	The Discharger is required to implement monitoring at Discharge Points 002, 016, 017, 022, 026, and 27 and to determine if additional water quality based effluent limits are required to ensure receiving water quality standards are protected

Item	Source	Receiving Water Limitations to be Removed	Action Taken and Rationale	Additional Monitoring
			requirements are implemented to inform future RPA. The Discharger will continue to conduct the ecological monitoring program to analyze impacts to marine life.	
9	Order 90-09 Section 9. and Ocean Plan Section II.D.6	Objectionable aquatic growths or degrade indigenous marine life.	Objectionable aquatic growths are typically attributed to nutrients, a combination of phosphorus, organic nitrogen, ammonia, nitrate, and nitrite. Nutrients in water bodies can be found naturally but are usually the result of anthropogenic sources and are commonly present in domestic wastewater effluent.[44] Discharge Point 001 primarily consists of once through cooling water, which is return raw seawater; however, one in-plant waste stream (001N – sanitary wastewater effluent) could be a source of nutrient materials. No reasonable potential was found for ammonia in the effluent for Discharge Point 001 and it is unlikely	Additional monitoring has been added for various forms of nitrogen and phosphorus at all discharge locations during this permit cycle to determine if additional effluent limits are necessary established to protect receiving water objectives.

[44] EPA, *Nutrient Pollution Sources and Solutions: Wastewater*, https://www.epa.gov/nutrientpollution/sources-and-solutions-wastewater

Item	Source	Receiving Water Limitations to be Removed	Action Taken and Rationale	Additional Monitoring
			that ammonia, specifically, is present in quantities that could contribute to aquatic growths or degrade marine life in the receiving water. Nitrate and nitrite are often found in wastewater treatment plant effluent undergoing nitrification /denitrification processes.[45] The wastewater treatment plant onsite is not designed or operated to nitrify or denitrify, and therefore it is unlikely that nitrate and nitrite are present in quantities that contribute to aquatic growths or degrade marine life. There is no data to determine if reasonable potential exists for phosphorus, nitrate, nitrite, or organic nitrogen at Discharge Point 001. However, the discharge from this in-plant waste stream is relatively small when compared to the final comingled discharge and is not likely to contribute nutrient materials at levels that could cause objectionable	

[45] EPA *Nitrification and Denitrification Facilities Wastewater Treatment,* August 1973, EPA-625/4-73-004a, https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=20008RFG.txt

Item	Source	Receiving Water Limitations to be Removed	Action Taken and Rationale	Additional Monitoring
			aquatic growths or degrade marine life in the receiving water. The remaining discharge points primarily consist of return raw seawater without any extensive contact with treatment processes that could cause or contribute to nutrient materials at levels in the discharge that could cause objectionable aquatic growths or degrade marine life. Due to the nature of the discharge, and best professional judgment on the data available it is probable that this water quality objective will be achieved without the need for additional requirements. To ensure that this remains true, additional monitoring is required.	
10	Order 90-09 Section C.10. and Ocean Plan Sections II.D.5	The concentration of organic materials in marine sediments shall not be increased to levels that would degrade marine life.	Discharge Point 001 primarily consists of once through cooling water, which is raw seawater; however, one internal discharge point (001N - sanitary wastewater effluent) could be a source of elevated organic materials.	

Item	Source	Receiving Water Limitations to be Removed	Action Taken and Rationale	Additional Monitoring
			Technology based effluent limits have been established for 001N for BOD, a measure of organic strength of wastewater or rate of oxygen consumed during the decomposition of organic material by bacteria.[46] (see, section 4.2.2.2.). The discharge from this in-plant waste stream is relatively small when compared to the final comingled discharge and is not likely to contribute to organic materials at levels that can degrade marine life in the receiving water and thus sediments. The remaining discharge points primarily consist of return raw seawater without any extensive contact with treatment processes that can cause or contribute to organic materials in the discharge, and thus receiving water or marine sediments. Due to the nature of the discharge it is likely that this water quality objective will be met in the receiving	

[46] State Water Board *Dissolved Oxygen Fact Sheet* 3.1.1.0, https://www.waterboards.ca.gov/water_issues/programs/swamp/docs/cwt/guidance/3110en.pdf

Item	Source	Receiving Water Limitations to be Removed	Action Taken and Rationale	Additional Monitoring
			water and marine sediments without the need for additional requirements. The Discharger will continue to conduct toxicity testing. The Discharger will continue to conduct ecological monitoring program to analyze impacts to marine life.	
11	Order 90-09 Section C.11. and Ocean Plan Section II.E.1	Marine communities, including vertebrate, invertebrate, algae, and plant species, shall not be degraded.	For the Discharge Points 001, 003, and 004 where data existed, an RPA was run and effluent limits established for those water quality objectives established in the Ocean Plan for the protection of Marine life. For the other remaining discharge points that had no monitoring data available, additional new monitoring requirements are implemented to inform future RPA. The Discharger will continue to conduct the ecological monitoring program to analyze impacts to marine life.	
12	Order 90-09 Section C.14.	Discharge of wastes shall not cause the	This permit contains effluent limits established for temperature at Discharge Point 001. As a result, it is	

Item	Source	Receiving Water Limitations to be Removed	Action Taken and Rationale	Additional Monitoring
	and Thermal Plan	temperature of the receiving water to adversely affect beneficial uses.[47]	probable that this water quality objective will be achieved. Remaining Discharge Points 002, 003, 004 016, 017, 022, 026, and 027 primarily consist of return raw seawater without any extensive contact with treatment processes that can cause or contribute to temperature changes in the discharge and thus receiving water. The Discharger will continue to monitor effluent and receiving waters for temperature. The Discharger will continue to conduct the ecological monitoring program to analyze impacts to marine life.	
13	Order 90-09 Section C.15, Ocean Plan Section II.B.1. II.B.2, and Basin Plan chapter 3, Sections 3.3.2.2.	Receiving water limitations related to bacteria and pathogens.	Discharge Point 001 primarily consists of once through cooling water, which is return raw seawater; however, one internal discharge (001N) could be a contributor of bacteria. However, the discharge from this in-plant waste stream is relatively small when compared to the	A special study will be conducted as described in Section 6.3.2.4. of this Order to characterize bacteria in the Facility's intake water, effluent, and receiving water to determine if new water quality based effluent limits and associated monitoring are

[47] Please see Section 4.3.6 for a discussion on Temperature Limitations.

Item	Source	Receiving Water Limitations to be Removed	Action Taken and Rationale	Additional Monitoring
			final comingled discharge and not likely to be a major contributor to bacteria that would exceed receiving water objectives associated with the REC-2 beneficial uses and section II.B.1.a of the Ocean Plan. The remaining discharge points primarily consist of return raw seawater and are not expected to contribute to bacteria concentrations in the receiving water. Receiving water bacteria objectives associated with the Shell Fishing Beneficial Use of the Basin Plan and Section II.B.2. of the Ocean plan are permissive and not applicable to this discharge location due to an ocean water security zone has been implemented around the Facility, prohibiting the use of Diablo Cove for recreational purposes. To ensure protection of water quality standards outside the ocean security zone a special study is necessary.	necessary to ensure water quality objectives are protected.

Table F-22. Summary of Actions: Other Applicable Water Quality Objectives

Item	Source	Water Quality Objectives	Action Taken and Rationale	Additional Monitoring
1	Ocean Plan Section II.C.5 Physical Characteristics	Trash shall not be present in ocean waters, along shorelines or adjacent areas in amounts that adversely affect beneficial uses or cause nuisance.	A prohibition on presence of trash in the effluent at all discharge points has been established for this permit. As a result, it is probable that this water quality objective will be achieved without the need for additional requirements. To ensure that this is the case and to ensure that water quality is protected, additional monitoring is required.	Additional visual monitoring of the discharge for the presence of trash will be conducted weekly.
2	Ocean Plan Section II.E.3 Biological Characteristics	The concentration of organic materials in fish, shellfish or other marine resources used for human consumption shall not bioaccumulate to levels that are harmful to human health.	See item 10 in the preceding Table F-21.	
3	Ocean Plan Section III.A.2.b(1)	Waste discharged to the ocean must essentially be free of material that is floatable or will	See Item 1 in the preceding Table F-21.	

Item	Source	Water Quality Objectives	Action Taken and Rationale	Additional Monitoring
		become floatable upon discharge.		
4	Ocean Plan Section III.A.2.b(2) G	Waste discharged to the ocean must essentially be free of settleable material or substances that may form sediments which will degrade benthic communities or other aquatic life.	See Item 4 in the preceding Table F-21.	
5	Ocean Plan Section III.A.2.b(3), Basin Plan 5.4,(1) and Basin Plan 5.4.1.1.	Waste discharged to the ocean must essentially be free of (hazardous) substances which will accumulate to toxic levels in marine waters, sediments or biota.	See Item 8 in the preceding Table F-21. The Discharger will continue to conduct the ecological monitoring program to analyze impacts to marine life. The Discharger will continue to conduct toxicity testing.	
6	Ocean Plan Section III.A.2.b(4)	Waste discharged to the ocean must essentially be free of substances that significantly decrease the natural light to	See Item 3 in the preceding Table F-21.	

Item	Source	Water Quality Objectives	Action Taken and Rationale	Additional Monitoring
		benthic communities and other marine life.		

5.2. Groundwater - None – Not Applicable

6. RATIONALE FOR PROVISIONS

6.1. Standard Provisions

Standard provisions, which apply to all NPDES permits in accordance with 40 CFR section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR section 122.42, are provided in Attachment D of this Order.

Sections 122.41(a)(1) and (b) through (n) of 40 CFR establish conditions that apply to all state-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in this Order. Section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 CFR section 123.25, this Order omits federal conditions that address enforcement authority specified in 40 CFR sections 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

6.2. Special Provisions

6.2.1. Reopener Provisions

These provisions are based on 40 CFR section 123.25. The Central Coast Water Board may reopen the Order to modify conditions and requirements, including for the following reasons: the promulgation of new regulations; modification in sludge use or disposal practices; the adoption of new policies or regulations by the State Water Resources Control Board or the Central Coast Water Board; to establish or adjust water quality objectives based on new information, including but not limited to information gleaned from monitoring, a dilution study, or any of the special studies or provisions described in sections 6.3.2 and 6.3.6 of this Order; the need for continued operation to maintain the reliability of the electric system or to incorporate changes from new laws or decisions by the California Independent System Operator or California Public Utilities Commission; and 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, 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 and issuance.

In addition to the foregoing, the Central Coast Water Board may modify or revoke and reissue this Order if the Discharger submits an ROWD for changed effluent volume/quality or if present or future investigations or monitoring results demonstrate that the discharges permitted by this Order have or will have a

reasonable potential to cause or contribute to adverse impacts on water quality or beneficial uses of the receiving waters.

6.2.2. Special Studies and Additional Monitoring Requirements

6.2.2.1. Toxicity Reduction Requirement

This Order includes toxicity reduction requirements to ensure compliance with Ocean Plan WQOs. Ocean Plan section III.C.10 requires that if a discharge consistently exceeds a chronic toxicity trigger based on a toxicity objective, a TRE is required. The requirement to submit a TRE work plan is necessary to prevent delays in initiating the TRE, so that the Discharger can diagnose and remedy toxicity in the shortest time practicable. Accelerated monitoring included in section 6.3.2.1.2 of the WDRs is required to determine if an exceedance of a toxicity limitation is consistent versus sporadic and would provide information for the Central Coast Water Board to determine if a TRE is necessary. This Order establishes the requirement to perform a TRE when toxicity monitoring measures chronic toxicity in the effluent above the chronic toxicity trigger or if an effluent limit for a pollutant from Table 3 of the Ocean Plan exceeds a WQO in Table 3. This provision is established in this Order in accordance with the Ocean Plan and is discussed in section 5.1 of the MRP.

6.2.2.2. Dilution Study

As described in section 4.3.3 of this Fact Sheet, the initial dilution factor used to perform the RPA for Discharge Point 001 was based on a dilution study submitted by the Discharger in February 1988. There is currently no additional information available to verify whether the dilution determined by the 1988 report is still valid in the vicinity of the discharge. The age of the data and methods used for determination of dilution in the 1988 study indicate the need for a new analysis of the dilution in the vicinity of the discharge. Therefore, this Order requires the Discharger to conduct a dilution study to determine the minimum probable initial dilution of the discharge at Discharge Point 001. If the Discharger chooses to apply for approval of a mixing zone at any other discharge point, it shall include the analysis of the minimum probable initial dilution at that location and submit its findings with those for Discharge Point 001.

6.2.2.3. Sea Foam Study

Significant concentrations of sea foam are produced within Diablo Cove due to a combination of factors: the turbulent effluent flow from Discharge Point 001 provides aeration to assist in the stimulation of foam formation, while the highly productive environment provides organic matter as a surfactant to stabilize and sustain the foam. Though often harmless, sea foam can at times be toxic when it contains high concentrations of harmful algae or pollutants. The Discharger is at a particular risk of contributing to sea foam toxicity, as the pollutants present in its surface discharge are highest near the ocean’s surface where the sea

foam is formed. Sea Foam may also prove physically problematic by limiting light penetration or impacting the navigational abilities of surfacing marine mammals. Furthermore, copious sea foam generation may result in aesthetically undesirable beaches on otherwise pristine shorelines.

Large concentrations of sea foam have been known to be present near the discharge since the facility's conduction in the 1970s. In response, the Discharger completed a detailed sea foam study*, Foam Control at Diablo Canyon: Report to the California Regional Water Quality Control Board Central Coast Region* (January 15, 1976), which provided observations of sea foam, a literature review of possible foam control concepts, and a multi-year plan for addressing sea foam and any harmful effects.

Follow up studies included a toxicity report, *Toxicity of Concentrated Seafoam Generated at Diablo Canyon Nuclear Power Plant* (August 6, 1976) and a photographic survey, *Diablo Canyon Foam Study 1976-1977* (April 5, 1979). The photographic study concluded that sea foam occurred due to both natural and engineered phenomena, while the toxicity report concluded that there was no mortality of marine invertebrates, but showed that acute toxicity of marine vertebrates was possible.

Order 90-09 contained relevant receiving water narrative limitations on floating particulates, aesthetically undesirable discoloration, and reduction in transmittance of natural light. However, the receiving water narrative limitations are removed from this new Order in response to *City and County of San Francisco vs. U.S. Environmental Protection Agency* (2025). Updates in 1995 to Order 90-09's associated Ecological Monitoring Program reporting then included the requirement for development of a new monitoring program for foam generation. However, this requirement was not enforced, and a comprehensive foam study has not been completed since the original 1970s reports.

Modern improvements in remote sensing and spatial data analysis now allow for more objective estimates of sea foam coverage and comparison with ambient conditions and plant operations such that further light may be shed on the level to which sea foam is affected by either natural or engineered phenomena. Furthermore, the Central Coast Water Board's established methods for toxicity studies provide rigorous framework to investigate acute and chronic effects of pollutants concentrated in sea foam. This motivates the revisiting of the roughly 50-year-old original foam reports as part of an updated Foam Monitoring Study.

6.2.2.4. Dissolved Oxygen and Bacteria Characterization Study

This Order requires the Discharger to conduct a detailed characterization study for dissolved oxygen and bacteria during the permit term. The Basin Plan and Ocean Plan include WQOs for dissolved oxygen, total coliform bacteria, fecal coliform bacteria, and enterococcus, as listed in Table F-23 below.

Table F-23. Applicable WQOs for Dissolved Oxygen and Bacteria

Pollutant	Instantaneous Minimum Effluent Limitations or Prohibition	WQO Reference
Dissolved Oxygen	The dissolved oxygen shall not be less than 7.0 mg/L as an instantaneous minimum.	Basin Plan Beneficial Use (MARINE)
Total Coliform Bacteria	The median total coliform density shall not exceed 70 most probable number per 100 mL (MPN/100 mL), and not more than 10 percent of samples shall exceed 230 per 100 mL within a 30-day period.	Ocean Plan section II.B
Fecal Coliform Bacteria	A 30-day geometric mean of fecal coliform density not to exceed 200 MPN/100 mL calculated based using the five most recent samples from each discharge and single sample maximum not to exceed 400 MPN/100 mL.	Ocean Plan section II.B
Enterococcus	A six-week rolling geometric mean of enterococci not to exceed 30 MPN/100 mL calculated weekly and a statistical threshold value* (STV) of 110 MPN/100 mL not to be exceeded by more than 10 percent of the samples collected in a calendar month, calculated in a static manner.	Ocean Plan section II.B

As explained in Fact Sheet section 5.1., *supra*, these WQOs were established in the previous permit as receiving water limitations, and there is insufficient information concerning bacteria in the Discharger's effluent or the receiving water generally. Order 90-09 did not include monitoring requirements for dissolved oxygen or bacteria. The study is necessary because effluent from internal Discharge Point 001N consists of sanitary waste, which may contain varying levels of bacteria. Further, the nature of the receiving water as an ocean water indicates that varying levels of bacteria may also be present in the ambient water. Therefore, the Central Coast Water Board is requiring the Discharger to conduct a characterization study during the permit term to gather effluent and receiving water data to determine if the Facility effluent may have the reasonable potential to contribute to exceedances of the dissolved oxygen and bacteria WQOs outside of the influent of the concentration of these pollutants in the receiving water.

6.2.3. Best Management Practices and Pollution Prevention

6.2.3.1. Pollutant Minimization Program

The Ocean Plan establishes guidelines for requiring a pollutant minimization program (PMP). At the time of the adoption of this Order no known evidence was available that would require the Discharger to immediately develop and conduct a PMP. Inclusion of this provision allows the Central Coast Water

Board will notify the Discharger in writing if such a program becomes necessary.

6.2.4. Construction, Operation, and Maintenance Specifications – Not Applicable

6.2.5. Special Provisions for POTWs – Not Applicable

6.2.6. Other Special Provisions

6.2.6.1. Once-Through Cooling Water Requirements

On May 4, 2010, the State Water Board adopted its *Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling* (OTC Policy). The OTC Policy became effective on October 1, 2010.

The OTC Policy establishes technology-based standards to implement federal Clean Water Act section 316(b) and reduce the harmful effects associated with cooling water intake structures for power generating facilities on marine and estuarine life.

As discussed in section 6.3.6.1 of the WDRs, the Discharger is subject to the requirements of the state OTC Policy and the federal CWA 316(b) Rule.

The OTC Policy establishes closed-cycle wet cooling as best technology available (BTA) for power plants using once-through cooling. The OTC Policy requires compliance with BTA under one of two alternative tracks. Under Track 1, an existing power plant must reduce the intake flow rate to a level commensurate with closed-cycle wet cooling such that the through-screen intake velocity does not exceed 0.5 feet per second. Track 2 is available to existing plants that demonstrate to the State Water Board's satisfaction that Track 1 is infeasible, and such plants must reduce impingement mortality and entrainment of marine life for the facility, on a unit-by-unit basis, to a comparable level to that which would be achieved under Track 1, using operational or structural controls or both. Until full compliance is attained, the OTC Policy requires power plants to implement measures to mitigate impingement and entrainment impacts resulting from cooling water intake structures (see, OTC Policy, Section 2.C.(3)).

To accommodate the unique compliance challenges faced by nuclear power plants, section 3.D of the OTC Policy required operators of nuclear power plants to fund special studies, conducted by independent third parties, to investigate alternatives to meet the requirements of the OTC Policy, including the costs of these alternatives. To satisfy this requirement, in 2014 Bechtel Power Corporation (acting as an independent third party) submitted a study entitled *Alternative Cooling Technologies or Modifications to the Existing Once-Through Cooling System for Diablo Canyon Power Plant*.

Prior to agency action on the alternatives study, PG&E submitted a plan to decommission Diablo Canyon. In the proposal, PG&E planned to operate Diablo Canyon until the expiration of the NRC licenses for Units 1 and 2 on

November 2, 2024, and August 26, 2025, respectively. This proposal implements Track 1 of the OTC Policy. In 2020, the State Water Board adopted OTC Policy revisions that accepted PG&E's decommissioning dates.

In 2022, Senate Bill 846 (SB 846) was passed into law, extending the operation of Diablo Canyon's two reactor units until October 31, 2029, and October 31, 2030. In SB 846, the legislature determined that the extended operation was necessary to "improve statewide energy system reliability and to reduce the emissions of greenhouse gases while additional renewable energy and zero-carbon resources come online, until those new renewable energy and zero-carbon resources are adequate to meet demand."

In response to SB 846, the State Water Board again amended the OTC Policy, effective December 5, 2023. The 2023 OTC Policy amendment revised the compliance dates for Diablo Canyon Units 1 and 2 to October 31, 2030, in accordance with SB 846 and Water Code section 13193.5.

In the interim, PG&E must also comply with immediate and interim requirements pursuant to section 2.C of the OTC Policy, as described in sections 6.2.6.1.1 through 6.2.6.1.5 of this Fact Sheet, below.

6.2.6.1.1. Impingement and Entrainment Study

Over the course of its operations, the Discharger has conducted a number of biological studies, including the following:[48]

- Impingement study (1985–1986)
- Entrainment studies (1996–1999 and 2008–2009)
- Alternative cooling technologies assessment (2012 and 2014)
- Intake Cove bathymetry surveys (2019, 2021, and 2023)
- Marine biological resources biological assessment (2020)

This permit requires an updated impingement and entrainment study. The most recent field collection of biological data was in 2009 for entrainment and 1986 for impingement. While there are no formal guidelines on using data from older studies, the State Water Board notes that US EPA, in its 2014 316(b) Rule for existing facilities, required that if studies were more than 10 years old, the applicant must demonstrate that the data is "still relevant and representative of conditions at the facility." (See 40 CFR 122.21(r)(6)-(7).) Given the age of the biological data at Diablo Canyon, the Central Coast Water Board has adopted this as the rationale to require an updated impingement and entrainment study. An updated study will ensure that the aquatic community in the vicinity of the Discharge has remained reasonably unchanged, the current level of impingement and entrainment is consistent with earlier studies, and the technologies in place continue to perform at expected levels.

[48] The Discharger also conducts a thermal effects monitoring program and a receiving water monitoring program.

The Discharger is required to develop a work plan for new field data collection and submit the work plan to the State Water Board for approval within nine months of the effective date of the permit. The impingement and entrainment study is due with the Discharger's next ROWD submittal, six months prior to the expiration of this Order. The updated study shall include a minimum of one year of new data collection and must address potential impacts to all threatened, endangered, and other protected species in the vicinity of the intake structure.

6.2.6.1.2. Flow Reduction

To reduce the volume of water withdrawn to the extent possible (with commensurate reductions in impingement and entrainment), any unit that is not directly engaged in power generating activities or critical system maintenance shall cease intake flows unless it has been demonstrated to the State Water Board that a reduced minimum flow is necessary for operations.

Per submitted correspondence and reports, the Discharger has indicated that as a base load facility, its Units 1 and 2 generally operate at 100 percent capacity unless shut down for refueling outages or curtailed for infrequent planned or emergent maintenance activities. The Facility's once-through cooling system is also equipped with auxiliary saltwater system pumps that at times must remain in operation for each unit including refueling outage periods and even for extended periods. In addition, a single circulating water pump must also be operated for a minimum of four to five days during restart from a refueling outage and may be required to operate for a longer period before electrical generation resumes. Lastly, during infrequent planned or forced outages, at least one circulating pump must also remain in operation while the nuclear unit is in hot standby and not generating electrical power to the grid.

6.2.6.1.3. Protection of Marine Protected Areas

The discharge of waste and/or intake of water shall not impact the function of SWQMPAs unless the impacts are mitigated to the satisfaction of the State Water Board.

6.2.6.1.4. Proper Operation and Maintenance

The Discharger shall continue to operate and properly maintain the existing intake technologies, which consist of bar racks and coarse-mesh traveling screens.

6.2.6.1.5. Mitigation

The ongoing operation of the Discharger's cooling water intake structure will continue to adversely impact aquatic resources in the vicinity of the Discharge. To offset these impacts, the OTC Policy requires that the Discharger implement measures to mitigate interim impingement and

entrainment impacts until full BTA compliance is achieved by October 31, 2030. As per the State Water Board's OTC Policy, the Discharger may comply with this requirement by doing any one of the following:

6.2.6.1.5.1. Demonstrating to the State Water Board's satisfaction that the Discharger is compensating for the interim impingement and entrainment impacts through existing mitigation efforts, including any projects that were required by state or federal permits as of October 1, 2010, or

6.2.6.1.5.2. Demonstrating to the State Water Board's satisfaction that the interim impacts are compensated for by the Discharger by providing funding to the California Coastal Conservancy, which will work with the California Ocean Protection Council to fund an appropriate mitigation project, or

6.2.6.1.5.3. Developing and implementing a mitigation project for the Facility approved by the State Water Board that will compensate for the interim impingement and entrainment impacts. Such a project must be overseen by an advisory panel of experts convened by the State Water Board.

PG&E has elected to comply with the interim mitigation requirements in section 2.C(3)(b) of the OTC Policy. Under this option, PG&E demonstrates compliance by providing funding to the California Ocean Protection Council and California Coastal Conservancy to fund appropriate mitigation projects. State Water Board Resolution 2015-0057 describes the procedures for calculating the interim mitigation payment. In 2017 the State Water Board updated site-specific mitigation costs for Diablo Canyon and provided an interim mitigation determination that invoiced the Discharger $3,852,106.18 for the 2015-2016 interim mitigation payment. On April 17, 2024, the State Water Board revised the interim mitigation payment calculation to ensure that annual payments will continue to appropriately compensate for the interim impacts to marine life based on current mitigation costs. The Discharger is expected to continue to comply with the interim mitigation requirements until full OTC Policy compliance is achieved by October 31, 2030. The State Water Board updates the mitigation fee annually and invoices PG&E for payment.

6.2.6.1.6. Suspension of Final Compliance Date

Based on the need for continued operation of an existing power plant to maintain the reliability of the electric system, the OTC Policy specifies that a final compliance date may be suspended under the following circumstances:

6.2.6.1.6.1 Suspension of final compliance date for less than 90 days for existing power plants within CAISO jurisdiction.

If the California Independent System Operator (CAISO) determines that continued operation of the Facility is necessary to maintain the reliability of the electric system in the short term, CAISO shall provide written notification to the State Water Board, the Central Coast Water Board, and the Statewide Advisory Committee on Cooling Water Intake Structures

(SACCWIS). If the executive directors of the California Energy Commission (CEC) and California Public Utilities Commission (CPUC) do not object in writing within 10 days to CAISO's written notification, the notification provided pursuant to this paragraph will suspend the final compliance date for the shorter of 90 days or the time CAISO determines necessary to maintain reliability. In the event either CEC or CPUC objects as provided in this paragraph, then the State Water Board shall hold a hearing as expeditiously as possible to determine whether to suspend the compliance date in accordance with OTC Policy paragraph 2.B(2)(d).

6.2.6.1.6.2 Suspension of final compliance date for longer than 90 days, or consecutive less-than-90-day suspensions, for existing power plants within CAISO jurisdiction

If CAISO determines that continued operation of the Facility is necessary to maintain the reliability of the electric system, CAISO shall provide written notification to the State Water Board, the Central Coast Water Board, and the SACCWIS. If the executive directors of the CEC and CPUC do not object in writing within 10 days to CAISO's determination, the notification provided pursuant to this paragraph will suspend the final compliance date for 90 days. During the 90-day time suspension or within 90 days of receiving a written notification from CAISO, the State Water Board shall conduct a hearing in accordance with OTC Policy paragraph 2.B(2)(d) to determine whether to suspend the final compliance date for more than the original 90 days, pending, if necessary, full evaluation of amendments to final compliance dates contained in the OTC Policy.

6.2.6.1.7. Federal CWA 316(b) Rule

The Discharger must comply with the federal CWA 316(b) Rule as follows:

6.2.6.1.7.1. Nothing in this permit authorizes take for the purposes of a facility's compliance with the federal Endangered Species Act.

6.2.6.1.7.2. The Discharger must either conduct visual inspections or employ remote monitoring devices during the period the cooling water intake structure is in operation. The Discharger must conduct such inspections at least weekly to ensure that any technologies operated to comply with this rule are maintained and operated to function as designed, including those installed to protect federally listed threatened or endangered species or designated critical habitat.

6.2.6.1.7.3. The Discharger's annual report must include an annual certification statement containing the following information:

6.2.6.1.7.3.1. If the information contained in the previous year's annual certification is still pertinent, the Discharger may simply state as such in a letter to the Central Coast Water Board, and the letter, along with any other applicable data submission requirements, shall constitute the annual certification.

6.2.6.1.7.3.2. If the Discharger has substantially modified operation of any unit at the Facility that impacts cooling water withdrawals or operation of the cooling water intake structures, the Discharger must provide a summary of those changes in the report. In addition, the Discharger must submit revisions to the information required at 40 CFR section122.21(r) in the Discharger's report of discharge due before expiration of this Order.

6.2.6.2. Biosolids Management

Biosolids are excluded from regulation under this permit per 40 CFR section 503.6 (d). Biosolids generated onsite are hauled offsite to approved disposal facility. This permit prohibits the discharges of sewage sludge and/or biosolids.

6.2.6.3. Discharges of Stormwater

This Order requires the Discharger to maintain coverage under the Industrial General Permit for stormwater discharges to ensure that water quality in the area of these discharges is maintained.

6.2.7. Compliance Schedules

6.2.7.1. In general, an NPDES permit must include final effluent and receiving surface limitations that are consistent with CWA section 301 and with 40 CFR section 122.44(d). There are exceptions to this general rule. State Water Board adopted the *Policy for Compliance Schedules in National Pollutant Discharge Elimination System Permits* (Resolution 2008-0025), which is the governing policy for compliance schedules in NPDES permits (hereafter "Compliance Schedule Policy"). The Compliance Schedule Policy allows compliance schedules for new, revised, or newly interpreted water quality objectives or criteria, or in accordance with a TMDL. All compliance schedules must be as short as possible and may not exceed 10 years from the effective date of the adoption, revision, or new interpretation of the applicable water quality objective or criterion, unless a TMDL allows a longer schedule. Where a compliance schedule for a final effluent limitation exceeds one year, the order must include interim numeric effluent limitations for that pollutant or parameter, interim requirements and dates toward achieving compliance, and compliance reporting within 14 days after each interim date. The order may also include interim requirements to control the pollutant, such as pollutant minimization and source control measures.

6.2.7.2. In accordance with the State Water Board's Compliance Schedule Policy and 40 CFR section 122.47, a discharger who seeks a compliance schedule must demonstrate additional time is necessary to implement actions to comply with a more stringent permit limitation. The discharger must provide the following documentation as part of the application requirements:

6.2.7.2.1. Diligent efforts have been made to quantify pollutant levels in the discharge and the sources of the pollutant in the waste stream, and the results of those efforts;

6.2.7.2.2. Source control efforts are currently underway or completed, including compliance with any pollution prevention programs that have established;

6.2.7.2.3. A proposed schedule for additional source control measures or waste treatment;

6.2.7.2.4. Data demonstrating current treatment facility performance to compare against existing permit effluent limits, as necessary to determine which is the more stringent interim, permit effluent limit to apply if a schedule of compliance is granted;

6.2.7.2.5. The highest discharge quality that can reasonably be achieved until final compliance is attained;

6.2.7.2.6. The proposed compliance schedule is as short as possible, given the type of facilities being constructed or programs being implemented, and industry experience with the time typically required to construct similar facilities or implement similar programs; and

6.2.7.2.7. Additional information and analyses to be determined by the Central Coast Water Board on a case-by-case basis.

6.2.7.3. The permit limitations for tributyltin in effluent were not included in the previous order. The new limitations are based on new implementation of standards established in the Ocean Plan. The Discharger has complied with the application requirements in paragraph 4 of the Compliance Schedule Policy. Based on information submitted by the Discharger, it has been demonstrated to the satisfaction of the Central Coast Water Board that the Discharger needs time to implement actions to comply with the new effluent limitations for tributyltin. Therefore, this Order includes the compliance schedule in Table 12.

7. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

CWA section 308 and 40 CFR sections 122.41(h), (j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Central Coast Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements under this NPDES permit. The monitoring and reporting program (MRP), Attachment E of this Order, establishes monitoring, reporting, and recordkeeping requirements that implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this Facility.

The Discharger is required to provide technical or monitoring reports because it is the owner and operator responsible for the waste discharge and compliance with this Order. The Central Coast Water Board needs this information to determine the Discharger's compliance with this Order, assess the need for further investigation or enforcement action, and to protect public health and safety and the environment

The Central Coast Water Board finds that any costs associated with monitoring and reporting are reasonable and "will result in appropriate data needed to evaluate water quality and other impacts of the discharges and ensure that beneficial uses are

protected" in this particularly sensitive marine environment. (*In re City of Oceanside et al.,* State Water Board Order WQ 2021-0005, at p. 13.)

7.1. Influent Monitoring

7.1.1. Monitoring Location INF-001

Temperature and pH have been retained from Order 90-09. Continuous influent temperature data is required to determine compliance with temperature effluent limitations at Discharge Point 001, as they are based on the difference between the natural temperature (as measured in the influent) and the effluent temperature. Monitoring requirements for pH have been retained, and for flow have been established, to inform future permit issuance.

Monitoring requirements for arsenic, cadmium, hexavalent chromium, copper, nickel, lead, mercury, silver, zinc, cyanide, ammonia, phenolic compounds, and chlorinated phenolics at Monitoring Location INF-001 have been reduced to once per five years. Since the influent is not used for the determination of reasonable potential or establishment of effluent limitations, the Central Coast Water Board has determined that a monitoring frequency of once per five years is sufficient for future permit issuance.

Monitoring requirements for the remaining Table 3 Ocean Plan pollutants have been established at Monitoring Location INF-001 to inform future RPAs and permit reissuance.

7.1.2. Monitoring Location INF-001N

Influent monitoring requirements for BOD_5 and TSS at Monitoring Location INF-001N have been established in this Order. This monitoring is necessary to determine compliance with the percent removal technology-based effluent limitations for BOD_5 and TSS established at Discharge Point 001N. Consistent with the effluent monitoring requirements, weekly composite samples are required.

7.2. Effluent Monitoring

7.2.1. Monitoring Location EFF-001

Monitoring requirements for pH, temperature, arsenic, cadmium, hexavalent chromium, nickel, cyanide, total residual chlorine, ammonia, phenolic compounds, chlorinated phenolics, PCBs, and chronic toxicity at Monitoring Location EFF-001 have been retained in this Order. These monitoring requirements have been retained to determine compliance with the effluent limitations established at Discharge Point 001 and/or to inform future RPAs. Monitoring requirements for copper, zinc, and ammonia have been reduced to annual based on the determination of the RPA resulting in the removal of previous effluent limitations for these pollutants. In addition, monitoring requirements for lead, mercury, silver, cyanide, phenolic compounds, and chlorinated phenolics have increased from

annual to monthly to determine compliance with retained or newly established effluent limitations and inform future RPAs.

Monitoring requirements for flow and chlorine used at Monitoring Location EFF-001 have been increased to ensure that data collection is appropriately capturing Facility operations.

Monitoring requirements for the remaining Table 3 Ocean Plan pollutants have been established at Monitoring Location EFF-001 to inform future RPAs.

Monitoring requirements for chlorination injection time have been established at Monitoring Location EFF-001 to determine compliance with the technology-based effluent limitation.

Monitoring requirements for titanium at Monitoring Location EFF-001 have not been retained in this Order since there are no numeric WQOs for titanium applicable to the discharge, and titanium has not been cited as a pollutant of concern. Monitoring requirements for acute toxicity at Monitoring Location EFF-001 have not been retained in this Order due to the guidelines in section III.C.4.c of the Ocean Plan.

Monitoring requirements for TSS, settleable solids, turbidity, total phosphorus, total Kjeldahl nitrogen, nitrate, nitrite, and sulfide have been established at Monitoring Location EFF-001 in lieu of receiving water limitations and monitoring as discussed in section 5 of this Fact Sheet.

7.2.2. Monitoring Locations EFF-003 and EFF-004

Monitoring requirements for pH, oil and grease, and TSS at Monitoring Location EFF-003 have been retained to determine compliance with the technology-based effluent limitations. Monitoring requirements for pH are established to determine compliance with WQBELs and inform future permit renewal decisions.

Monitoring requirements for pH and oil and grease at Monitoring Location EFF-004 have been retained, and monitoring requirements for TSS at Monitoring Location EFF-004 have been established to determine compliance with technology-based effluent limitations for these pollutants at Discharge Point 004.

Monitoring requirements for flow, total residual chlorine, and tributyltin have been established at Monitoring Locations EFF-003 and EFF-004 to determine compliance with new WQBELs and related mass-based limits for these pollutants at Discharge Points 003 and 004 and to inform future RPAs.

Monitoring requirements for the remaining Table 3 Ocean Plan pollutants have been established at Monitoring Locations EFF-003 and EFF-004 in this Order to inform future RPAs in accordance with 40 CFR section 122.44 (d)(1)(iii).

Monitoring requirements for settleable solids, turbidity, total phosphorus, total Kjeldahl nitrogen, nitrate, nitrite, and sulfide have been established at Monitoring Location EFF-003 and EFF-004 in lieu of receiving water limitations and monitoring as discussed in section 5 of this Fact Sheet.

7.2.3. Monitoring Locations EFF-002, EFF-016, EFF-017, EFF-022, EFF-026, and EFF-027

Monitoring requirements for TSS and oil and grease at Monitoring Location EFF-002 and for oil and grease at Monitoring Locations EFF-016 and EFF-017 have been retained from Order 90-09 to determine compliance with the technology based effluent limitations for these pollutants. The monitoring frequency for oil and grease at Monitoring Locations EFF-016 and EFF-017 has been increased from annual to quarterly to be consistent with the monitoring frequency for this pollutant at Monitoring Location EFF-002 since the technology-based effluent limitations at these discharge points are based on ELGs at 40 CFR part 423 for low volume wastes.

Monitoring requirements for TSS and pH have been established at Monitoring Locations EFF-016 and EFF-017 to determine compliance with new technology-based effluent limitations for these pollutants at Discharge Points 016 and 017.

Monitoring requirements for TSS, oil and grease, and pH have been established at Monitoring Locations EFF-022, EFF-026, and EFF-027 to determine compliance with new technology-based effluent limitations for these pollutants at Discharge Points 022, 026 and 027.

Monitoring requirements for flow have been established at Monitoring Locations EFF-002, EFF-016, EFF-017, EFF-022, EFF-026, and EFF-027 to inform future permit reissuance.

Monitoring requirements for settleable solids, turbidity, total phosphorus, total Kjeldahl nitrogen, nitrate, nitrite, and sulfide have been established at Monitoring Locations EFF-002, EFF-016, EFF-017, EFF-022, EFF-026, and EFF-027 in lieu of receiving water limitations and monitoring as discussed in section 5 of this Fact Sheet.

Monitoring at these locations is only required once during the first year of the Order's implementation period to allow the Discharger time to develop sampling protocols at new discharge points.

7.2.4. Internal Monitoring Location INT-001

Monitoring requirements for hexavalent chromium, lead, mercury, nickel, silver, cyanide, phenolic compounds, and chlorinated phenolics have been established at internal Monitoring Location INT-001 to determine compliance with newly established flow-weighted effluent limits, and to inform future permit reissuance.

7.2.5. Internal Monitoring Location INT-001D

Monitoring requirements for TSS, oil and grease, copper, and iron at internal Monitoring Location INT-001D have been retained to determine compliance with technology-based effluent limitations at internal Discharge Point 001D. Monitoring requirements for lithium, boron, and hydrazine at internal Monitoring Location INT-001D have been retained to inform future permit reissuance and ensure the Facility is operating as intended.

Monitoring requirements for cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc at Monitoring Location INT-001D have not been retained from Order 90-09 since Discharge Point 001D is an internal outfall, and there is no information available to indicate that these are pollutants of concern related to the process waste stream discharged from this outfall.

Monitoring requirements for flow at internal Monitoring Location INT-001D to enable calculation of mass-based emissions to determine compliance with the newly established mass-based limits at internal Discharge Point INT-001.

7.2.6. Internal Monitoring Locations INT-001F, INT-001H, INT-001J, INT-001L, and INT-001M

Monitoring requirements for TSS and oil and grease at internal Monitoring Locations INT-001F, INT-001H, INT-001J, INT-001L, and INT-001M and for copper and iron at internal Monitoring Locations INT-001F, INT-001L, and INT-001M have been retained to determine compliance with technology-based effluent limitations for these pollutants at Discharge Points 001F, 001H, 001J, 001L, and 001M.

Monitoring requirements for copper and iron have been established at internal Monitoring Locations INT-001H and INT-001J to determine compliance with new technology-based effluent limitations for these pollutants.

Monitoring requirements for cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc at internal Monitoring Locations INT-001F, NT-001H, and INT-001L have not been retained from Order 90-09 since Discharge Points 001F, 001H, and 001L are internal outfalls, and there is no information available to indicate that are pollutants of concern related to the process waste stream discharged from this outfall.

7.2.7. Internal Monitoring Location INT-001N

Monitoring requirements for TSS, oil and grease, and settleable solids at internal Monitoring Location INT-001N have been retained to determine compliance with technology-based effluent limitations for these pollutants at Discharge Point 001N.

Monitoring requirements for flow, BOD_5, and turbidity have been established at internal Monitoring Location INT-001N to determine compliance with new technology-based effluent limitations for these pollutants at Discharge Point 001N and to calculate new mass-based limits at internal Discharge Point INT-001.

7.2.8. Internal Monitoring Locations INT-001G, INT-001P, and INT-001Q

Monitoring requirements for TSS and oil and grease at internal Monitoring Locations INT-001G and INT-001P have been retained to determine compliance with technology-based effluent limitations for these pollutants at Discharge Points 001G and 001P.

Monitoring requirements for pH at internal Monitoring Location INT-001P have not been retained from Order 90-09 since this is an internal waste stream monitoring location. See section 4.2.4.2 of this Fact Sheet for detailed discussion.

Monitoring requirements for TSS and oil and grease have been established at internal Monitoring Location INT-001Q to determine compliance with new technology-based effluent limitations for these pollutants at internal Discharge Point 001Q.

7.3. WET Testing Requirements

This Order retains quarterly chronic toxicity monitoring at Discharge Point 001 to inform future RPAs.

This Order also requires the Discharger to conduct additional toxicity testing for exceedances of the chronic toxicity trigger of **3.9**. If the additional tests demonstrate toxicity, the Discharger is required to submit a TRE in accordance with the Facility's updated TRE work plan and USEPA guidance. The TRE must include the following: further steps taken by the Discharger to investigate, identify, and correct the causes of toxicity; actions the Discharger will take to mitigate the effects of the discharge and prevent the recurrence of toxicity; and a schedule for these actions. Section III.C.10 of the Ocean Plan requires a TRE if a discharge consistently exceeds the trigger based on a toxicity objective in Table 3 of the Ocean Plan. Consistent with the requirements of the Ocean Plan, section 6.3.2.1 of this permit, section 5.3 of the MRP (Attachment E) requires the Discharger to develop an initial investigative TRE work plan and submit the work plan within 90 days of the effective date of this Order. The work plan must describe steps the Discharger intends to follow if the chronic toxicity trigger is exceeded.

The Discharger is also required to implement a toxicity identification evaluation (TIE), as necessary, based upon the magnitude and persistence of chronic toxicity trigger exceedances. Once the source of toxicity is identified, the Discharger must take all reasonable steps to reduce the toxicity to meet the chronic toxicity trigger identified in section 4 of the WDRs. Within 30 days of completion of the TRE, the Discharger must submit the results of the TRE, including a summary of the findings, data generated, a list of corrective actions taken or planned to achieve consistent compliance with the chronic toxicity trigger in this Order and prevent recurrence of exceedances of the trigger, and a time schedule for implementation of any planned corrective actions. The Discharger must implement any planned corrective actions in the TRE final report in accordance with the specified time schedule, unless otherwise directed in writing by the Central Coast Water Board and/or USEPA Region 9. The corrective actions and time schedule must be modified if directed by the Central Coast Water Board and/or USEPA Region 9.

7.3.1. Species Sensitivity Screening

This Order requires the discharger to conduct species sensitivity screening during the first chronic toxicity sampling event after the effective date of this Order. In lieu of this species sensitivity screening, this Order allows the Discharger to use

existing species sensitivity screening results provided that the existing results are still valid and relevant for current discharge conditions.

The Discharger conducted an initial species sensitivity screening in 1991 for red abalone (*Haliotis rufescens)*, giant kelp (*Macrocystis pyrifera*), and silversides (*Menidia beryllina)* in accordance with the procedures and protocols described in the 1990 Ocean Plan. Of these species tested, only red abalone larval bioassays indicated toxicity during the testing period, and as a result was chosen as the desired test species for future chronic toxicity testing.[49]

In 2012, the Discharger notified the Central Coast Water Board of commercial laboratory issues related to the sourcing larval red abalone. The Discharger proposed to use both 48-hour embryonic larval development chronic toxicity tests using marine mussels, *Mytilus sp.* (*Mytilus edulis* or *Mytilus californianus*), or 72-hour larval development chronic toxicity test using the purple sea urchin, *Strongylocentrotus purpuratus*. On February 17, 2012, Central Coast Water Board approved the request to modify chronic toxicity test species when red abalone was not available.

7.4. Receiving Water Monitoring

7.4.1. Visual Monitoring

In accordance with section 8.1, *supra*, this Order requires that the Discharger conduct weekly visual observations of the intake and receiving waters near the outfall in order to ensure that receiving waters are protected.

7.4.2. Ecological Monitoring Program

This Order requires the Discharger to continue its ecological monitoring program to evaluate the effects of the discharge on the Pacific Ocean at Diablo Cove. This requirement is retained from Order 90-09 and the 1995 revised monitoring and reporting program replacing the monitoring and reporting program in Order 90-09. Additionally, in 1998 the Discharger submitted its *Comprehensive Evaluation of the Current Receiving Water Monitoring Program* (Evaluation Report) for Central Coast Water Board and independent third-party review. A revised receiving water monitoring program, incorporating changes based on the evaluation report and review, was submitted on January 8,1999.[50] The current receiving water monitoring plan, as described in section 8.2 of this Order, reflects all revisions to date. In addition, the Discharger agreed to continue biological monitoring of the receiving water in the 2021 consent judgment discussed in section 4.6 of this Fact Sheet.

To date, the effects of the discharge have been assessed by comparing data from three time periods: 1) a 'PreOp Period' before power plant start-up (January 1978 to December 1984), 2) 'OpPeriod-1,' an eight-year period after power plant start-up (1987 through April 1995), and 3) 'OpPeriod-2,' a seven-year period of

[49] PG&E Letter No. DCL-93-130
[50] PG&E Letter No. DCL-99-503

operation following OpPeriod-1 (May 1995 through June 2002). Generally, these evaluations compared physical and biological data between monitoring stations in areas that are affected by the cooling water discharge and control stations not affected by the discharge. In comparing these recent results to the previous findings, the Discharger has concluded that 1) it was evident that, for many species affected by the discharge, the initial changes that occurred after Facility start-up had essentially stabilized and 2) with a few exceptions, the majority of biological effects were confined to Diablo Cove and diminished with both depth and distance from the discharge.

7.4.3. Groundwater – Not Applicable

7.5. Other Monitoring Requirements

7.5.1. Biosolids Reporting Requirements

Biosolids generated at this facility are excluded from federal biosolids regulations per 40 CFR section 503.6 (d). Biosolids generated onsite are hauled offsite to approved disposal facility. Reporting requirements are included in this order for transport and final destination record keeping purposes only.

7.5.2. Once-Through Cooling Water/CWA Section 316(b) Monitoring Requirements

To enable compliance with mitigation requirements, this Order includes flow monitoring requirements of intake water.

7.5.3. Discharge Monitoring Report-Quality Assurance (DMR-QA) Study Program

Under the authority of section 308 of the CWA (33 U.S.C. § 1318), USEPA requires major and selected minor dischargers under the NPDES Program to participate in the annual DMR-QA Study Program. The DMR-QA study evaluates the analytical ability of laboratories that routinely perform or support self-monitoring analyses required by NPDES permits. There are two options to satisfy the requirements of the DMR-QA Study Program: (1) The Discharger can obtain and analyze a DMR-QA sample as part of the DMR-QA Study or (2) per the waiver issued by USEPA to the State Water Board, the Discharger can submit the results of the most recent Water Pollution Performance Evaluation Study from its own laboratories or its contract laboratories. A Water Pollution Performance Evaluation Study is similar to the DMR-QA Study. Thus, it also evaluates a laboratory's ability to analyze wastewater samples to produce quality data that ensure the integrity of the NPDES Program. The Discharger shall ensure that the results of the DMR-QA Study or the results of the most recent Water Pollution Performance Evaluation Study are submitted annually to the State Water Board. The State Water Board's quality assurance program officer will send the DMR-QA Study results or the results of the most recent Water Pollution Performance Evaluation Study to USEPA's DMR-QA coordinator and quality assurance Manager.

8. CONSIDERATION OF NEED TO PREVENT NUISANCE AND WATER CODE SECTION 13241 FACTORS

Some of the provisions/requirements in this Order are included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations. As required by Water Code section 13263, the Central Coast Water Board has considered the need to prevent nuisance and the factors listed in Water Code section 13241 in establishing the state law provisions/requirements. The Central Coast Water Board finds, on balance, that the state law requirements in this Order are reasonably necessary to prevent nuisance and to protect beneficial uses identified in the Basin Plan and the Ocean Plan and the section 13241 factors are not sufficient to justify failing to protect those beneficial uses.

8.1. Need To Prevent Pollution or Nuisance

In establishing the requirements of this Order, the Central Coast Water Board has considered state law to prevent pollution or nuisance as defined in section 13050, subdivisions (l) and (m), of the Water Code. Certain of the requirements in this Order, including those in subsections 5.1 (taste and odor provisions, Ocean Plan section II.E.2), and 6.3.6.4 (climate change), are included to implement sections of the Ocean Plan and State policy on climate change, all of which are designed to prevent pollution and nuisance.

8.2. Past, Present, and Probable Future Beneficial Uses of Water

Section I of the Ocean Plan establishes beneficial uses of all ocean waters of the State, and Chapter 3 of the Basin Plan identifies designated beneficial uses for water bodies in the Central Coast Region. The beneficial uses of water relevant to this Order are also identified above in Fact Sheet section 3.3.1. The Central Coast Water Board has taken this factor into account in establishing effluent limitations, climate change requirements, receiving water limitations, and other requirements in this Order and follows the anti-backsliding and antidegradation requirements (Fact Sheet sections 4.4.1 and 4.4.2, respectively). The provisions herein protect the past, present and probable future beneficial uses of water.

8.3. Environmental Characteristics of the Hydrographic Unit Under Consideration, Including the Quality of the Water Available Thereto

The environmental characteristics are discussed in the Basin Plan, the Ocean Plan, the Central Coast Water Board's Watershed Management Initiative Chapter and are also available in State of the Watershed reports and the state's CWA section 303(d) List of impaired waters. The environmental characteristics of the hydrographic unit, including the quality of available water, will be improved by compliance with the requirements of this Order.

8.4. Water Quality Conditions That Could Reasonably Be Achieved Through the Coordinated Control of All Factors Which Affect Water Quality in the Area

The water quality objectives necessary to protect beneficial uses of this area of the Pacific Ocean and waterbodies in the Estero Bay Hydrologic Unit can reasonably be achieved through the coordinate control of all factors that affect water quality in the area. The Facility itself has once-through cooling mitigation requirements with which it must comply, and there are numerous regulatory actions affecting waterbodies in the Estero Bay Hydrologic Unit (which includes Santa Rosa Creek, Chorro Creek, San Luis Obispo Creek, and Arroyo Grande Creek) that together ensure water quality is protected in the area. Generally, improvements to the quality of the receiving waters impacted by the Facility's discharges can be achieved with implementation of its once-through cooling mitigation requirements, reducing pollutant loads through source control/pollution prevention, and removal of pollutants through treatment. The Central Coast Water Board has taken this factor into account in establishing effluent limitations and other requirements in the Order.

8.5. Economic Considerations

The Permittee did not present any evidence regarding economic considerations related to this Order. However, the Central Coast Water Board has considered economic factors in establishing the requirements in this Order. The Central Coast Water Board is aware that, as of 2023, the Facility provided approximately 17 percent of California's zero-carbon electricity and approximately 9 percent of its total electricity.[51] Additionally, the Facility is one of San Luis Obispo County's largest employers. Activities such as commercial fishing and shellfish harvesting and water-based recreational activities occur within San Luis Obispo County and near the Facility, and these activities result in economic benefits.[52] The beneficial uses here include REC1, REC2, COMM and SHELL. The loss of, or impacts to, beneficial uses would have a detrimental economic impact. On balance, the Central Coast Water Board finds that any additional costs associated with complying with state law requirements are reasonably necessary to prevent nuisance and protect beneficial uses identified in the Basin Plan.

8.6. Need for Developing Housing Within the Region

The Central Coast Water Board finds that this Order, which controls the discharge of certain waste streams and once through cooling water from a nuclear power plant directly to the Pacific Ocean, will have little or no impact on housing in the area.

8.7. Need to Develop and Use Recycled Water

[51] See, e.g., CEC Determines Diablo Canyon Power Plant Needed to Support Grid Reliability.
[52] No fishing, shellfish harvesting, or recreational activities are authorized within a 2,000-yard radius from the Facility's center point (35°12′23″ N, 120°51′23″ W) because the U.S. Coast Guard established a security zone, and no exceptions exist. See, 33 CFR section 165.1155. However, recreational activities and commercial fishing and shellfish harvesting occur right outside and up until the boundary of the security zone. Indeed, as of 2015, California's 19 coastal counties generated $662 billion in wages and $1.7 trillion in GDP in 2012, which both account for 80 percent of their respective state totals. See, california-ocean-economy.pdf.

The State Water Board's Recycled Water Policy requires the Central Coast Water Board to encourage the use of recycled water, as does Water Code section 13241. The Central Coast Water Board finds that this Facility has no impact on the use of recycled water and that the nature of the discharge does not give rise to recycling of water. This factor has no impact on any of the requirements in this Order.

9. PUBLIC PARTICIPATION

The Central Coast Water Board considered the issuance of WDRs that serve as an NPDES permit for the Diablo Canyon Power Plant and as a step in the WDR adoption process, the Central Coast Water Board staff developed WDRs and encouraged public participation in the WDR adoption process.

9.1. Notification of Interested Parties

The Central Coast Water Board notified California Native American Tribes with an area of affiliation with the Project's county on August 12, 2025. This letter invited tribes to provide input on the permitting process and provide opportunities to request consultation with Central Coast Water Board staff.

On November 7, 2025, the Central Coast Water Board notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided through email to interested persons subscribed to the Central Coast Water Board's list for PG&E Diablo Canyon Power Plant updates.

The public has access to the agenda and any changes in dates and locations through the Central Coast Water Board's website at: https://waterboards.ca.gov/centralcoast/board_info/agendas/

9.2. Public Workshop

During the public comment period, the Central Coast Water Board held a public workshop on November 12, 2025. Comments received during this public workshop were recorded and are addressed with the written comments received during the public review period.

9.3. Written Comments

Interested persons were invited to submit written comments concerning WDRs as provided through the notification process.

To be fully responded to by staff and considered by the Central Coast Water Board, the written comments were due at the Central Coast Water Board office, located at 895 Aerovista Place, Suite 101, San Luis Obispo, CA 93401, by 5:00 p.m. on December 8, 2025.

9.4. Public Hearing

The Central Coast Water Board held a public hearing on the WDRs during its regular Board meeting on the following date and time and at the following location:

Date: **February 26-27, 2026**
Time: **8:00 a.m.**
Location: **Central Coast Regional Water Quality Control Board Office**
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401

Interested persons were invited to attend. At the public hearing, the Central Coast Water Board heard testimony pertinent to the discharge, WDRs, and permit. For accuracy of the record, important testimony was requested in writing.

9.5. Reconsideration of Waste Discharge Requirements

Any person aggrieved by this action of the Central Coast Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m. within 30 calendar days of the date of adoption of this Order at the following address, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100
Or by email at waterqualitypetitions@waterboards.ca.gov

For instructions on how to file a petition for review, see the Water Quality Petitions Website: (https://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml)

9.6. Information and Copying

The Report of Waste Discharge, other supporting documents, and comments received are on file and may be inspected at the address above at any time between 8:00 a.m. and 5:00 p.m., Monday through Friday. Copying of documents may be arranged through the Central Coast Water Board by calling (805) 549-3147.

9.7. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Central Coast Water Board, reference this facility, and provide a name, address, email address, and phone number.

9.8. Additional Information

Requests for additional information or questions regarding this Order should be directed to Mark Lemus at (805) 549-3703.