CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

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Regional Board Website (https://www.waterboards.ca.gov/centralvalley)

[TENTATIVE] WASTE DISCHARGE REQUIREMENTS ORDER R5-2022-00XX

ORDER INFORMATION

Order Type(s):	Waste Discharge Requirements (WDRs)
Status:	TENTATIVE
Program:	Non-15 Discharges to Land
Region 5 Office:	Redding
Discharger(s):	City of Redding
Facility:	Redding Power Plant
Address:	17120 Clear Creek Road
County:	Shasta County
Parcel Nos.:	208-170-025
CIWQS ID:	252171
Prior Order(s):	Order 94-267

CERTIFICATION

I, PATRICK PULUPA, Executive Officer, hereby certify that the following is a full, true, and correct copy of the order adopted by the California Regional Water Quality Control Board, Central Valley Region, on _____ February 2022.

_____
PATRICK PULUPA
Executive Officer

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GLOSSARY

Antidegradation Policy ... *Statement of Policy with Respect to Maintaining High Quality Waters in California*, State Water Board Resolution 68-16

Basin Plan ..... Water Quality Control Plan for Sacramento and San Joaquin River Basins

bgs ..... Below Ground Surface

BOD ..... Biological Oxygen Demand

BPTC ..... Best Practicable Treatment and Control

CEQA ..... California Environmental Quality Act, Public Resources Code section 21000 et seq.

CEQA Guidelines ..... California Code of Regulations, Title 14, section 15000 et seq.

C.F.R. ..... Code of Federal Regulations

COC[s] ..... Constituent[s] of Concern

DO ..... Dissolved Oxygen

DTSC ..... California Department of Toxic Substances Control

DWR ..... California Department of Water Resources

EC ..... Electrical Conductivity

EIR ..... Environmental Impact Report

FDS ..... Fixed Dissolved Solids

FEMA ..... Federal Emergency Management Agency

LAA ..... Land Application Area

lbs/ac/yr ..... Pounds per Acre per Year

µg/L ..... Micrograms per Liter

GLOSSARY

µmhos/cm ..... Micromhos per Centimeter

MG[D] ..... Million Gallons [per Day]

mg/L..... Milligrams per Liter

msl..... Mean Sea Level

MRP ..... Monitoring and Reporting Program

MW..... Monitoring Well

MCL ..... Maximum Contaminant Level per Title 22

ORP ..... Oxygen Reduction Potential

N..... Nitrogen

ND..... Non-Detect

NE..... Not Established

NM..... Not Monitored

R[O]WD ..... Report of Waste Discharge

RCRA..... Resource Conservation and Recovery Act

SPRRs ..... Standard Provisions and Reporting Requirements

SERC ..... State Emergency Response Commission

TDS..... Total Dissolved Solids

Title 22..... California Code of Regulations, Title 22

Title 23..... California Code of Regulations, Title 23

Title 27..... California Code of Regulations, Title 27

TKN..... Total Kjeldahl Nitrogen

TSO..... Time Schedule Order

GLOSSARY

Unified Guidance..... *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance* (USEPA, 2009)

USEPA..... United States Environmental Protection Agency

VOC[s]..... Volatile Organic Compound[s]

WDRs..... Waste Discharge Requirements

WQO[s]..... Water Quality Objective[s]

(findings begin on next page)

FINDINGS

The Central Valley Regional Water Quality Control Board (Central Valley Water Board) hereby finds as follows:

Introduction

1. City of Redding (Discharger) owns and operates the Redding Power Plant (Facility) located at 17120 Clear Creek Road, Shasta County, Section 27, T31N, R5W, Mount Diablo Base and Meridian (MDB&M). The Facility's location is depicted on the Site Location Map in Attachment A.

2. The Facility occupies Assessor Parcel Number (APN) 208-170-025.

3. As Facility's owner and operator, the Discharger is responsible for compliance with the Waste Discharge Requirements (WDRs) prescribed in this Order.

4. The following materials are attached to this Order and incorporated herein:

a. Attachment A—Site Location Map

b. Attachment B—Site Map

c. Standard Provisions and Reporting Requirements

d. Information Sheet

5. Also attached to this is Monitoring and Reporting Program R5-2022-00XX, which establishes a Monitoring and Reporting Program (MRP) for discharges regulated under the WDRs prescribed herein. Compliance with the MRP and subsequent revisions thereto is required under this WDRs Order.

6. Any additional information set forth in the attached Information Sheet is also incorporated herein.

7. On 28 April 2020, the Discharger submitted a Report of Waste Discharge (ROWD) to apply for WDRs for wastewater discharges from an existing power plant.

Background

8. WDRs Order 94-267, adopted by the Central Valley Water Board on 16 September 1994, prescribes requirements for discharges associated with a 185-megawatt natural gas-fired power plant. The Facility employs the use of five gas turbines and one steam turbine to generate power for the City of Redding. The current WDRs are due for an update, therefore, Order 94-267 will be rescinded and replaced with this order.

9. Wastewater generated at the Facility includes cooling tower and boiler blowdown, reverse osmosis wastewater, and floor drain water.

10. The Facility is currently permitted to discharge up to 162,720 gallons per day (GPD) to the percolation pond with an average daily flow from 2015-2019 of 55,759 GPD.

11. Domestic wastewater generated at the site is discharged into an onsite septic/leach field system.

Facility Description

12. All process wastewater at the Facility is routed through the Unit 4, steam turbine, cooling tower before being blown down and discharged to the percolation pond. There is no treatment for wastewater at the Facility.

13. Prior to 2002, the Facility used a demineralizer to treat incoming water; the wastewater was discharged to a lined evaporation pond and subsequent land application area (LAA). The demineralizer was replaced with a reverse osmosis unit in 2002; the wastewater is routed through the Unit 4 cooling tower and discharged to the percolation pond. The lined evaporation pond and LAA are no longer in use, with no anticipated future use.

14. The Facility uses various chemicals to maintain pH and inhibit corrosion. **Table 1** shows the chemicals used and estimated 2020 consumption.

Table 1—Chemicals Used at Facility

Trade Name	2020 Est. Use (Gallons)	Active Constituents (Concentrations by Weight)
Gengard	891	Chlorotolyltriazole Sodium Salt (1-5%) Sodium Hydroxide (1-5%)
Spectrus	92	Magnesium Nitrate (1-2.5%) Mixture of 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one (1-2.5%)
Optisperse	31	Sodium Hydroxide (2.5-10%)
Sulfuric Acid	3483	Sulfuric Acid (>51%)
Multi-Chlor	3738	Sodium Hypochlorite (12%)
Steamate	10	Morpholine (20-40%) Cyclohexylamine (10-20%)
Cortrol	19	N,N Diethylhydroxylamine (20-40%) Hydroquinone (1-2.5%)
Sodium Hypochlorite	3738	Sodium Hypochlorite (10-16%)

15. The Discharger performs quarterly monitoring of the percolation pond, which is summarized in **Table 2**.

Table 2—Percolation Pond Monitoring (2012-2019)

Constituent	Units	Average	Range
pH	standard units	7.0	6.5-8.1
Chloride	mg/L	64.9	10.6-118
Nitrate as Nitrogen	mg/L	0.9	0-3.7
Sulfate	mg/L	140.6	6-282
Electrical Conductivity	µmhos/cm	619.5	103-888

16. Solids at the Facility are generated during cooling tower cleaning where solids are rinsed into a sump. Solids volume is assessed yearly; Big Valley Sanitation pumps and disposes of the cooling tower sump contents as needed.

17. All stormwater is contained on site.

Site Specific Conditions

18. The Facility is approximately 520 feet above mean sea level. Surface topography is relatively flat. The percolation pond is approximately half mile north of Clear Creek, a tributary of the Sacramento River.

19. The Federal Emergency Management Area designates the location of the Facility and LAA as flood zone x, which indicates that the Facility is outside the 500-year floodplain with minimal risk of flooding.

20. The Facility is in a Mediterranean climate characterized by dry summers and wet winters; the rainy season is typically from November through April. Average annual pan evaporation is 53.53 inches at Whiskeytown Lake, which is approximately nine miles north of the Facility, according to data in the Average Pan Evaporation by State table by Western Regional Climate Center. The average annual precipitation in Redding 44.89 inches and the 100-year annual precipitation is 70.83 inches.

21. Land use in the area is predominantly industrial; the Facility is adjacent to sand and gravel mining operations and vacant land. South of the power plant, along Clear Creek Road there is a truck equipment business, a concrete recycling facility, and hardwood products business.

Groundwater Conditions

22. Historical groundwater monitoring shows the depth to groundwater ranges from approximately 9-30 feet below ground surface (bgs) or approximately 486-509 feet above mean sea level. An analysis of groundwater data from 2015-2019 indicates regional shallow groundwater flows towards the south-southeast with an average gradient of 0.057 feet per foot.

23. Soils underlying the Facility and percolation pond are classified as Tailings and placer diggings according to the United States Department of Agriculture's Natural Resources Conservation web soil survey, which are highly permeable with low runoff. Completion reports for the three onsite monitoring wells describes the subsurface as loose cobbles from 0-10 feet bgs, sand from 10--20 feet bgs, and blue clay from 20-29 feet bgs.

24. The percolation pond has one background monitoring well, Monitoring Well 1 (OB-1) and two downgradient monitoring wells, Monitoring Wells 2 and 3A (OB-2, OB-3A). Average groundwater data from 2001-2019 is summarized in Table 3.

Table 3—Groundwater Monitoring (2001-2019)

Constituent	Units	OB-1	OB-2	OB-3A	Numeric Limit
pH	Std. Units	6.97	6.72	7.0	6-8[2]
Chloride	mg/L	14.7	77.4	68.6	250[2]
Nitrate as Nitrogen	mg/L	0.11	0.05	0.5	10[1]
Sulfate	mg/L	7.32	131.02	101.6	250[2]
Electrical Conductivity	µmhos per centimeter	249	711	542.7	900[2]
Molybdenum	µg/L	1.9	4.3	8.4	10[3]

Table Note 1: Primary Maximum Contaminant Level

Table Note 2: Secondary Maximum Contaminant Level

Table Note 3: Agricultural Water Quality Goals (Not Numeric WQO)

Legal Authorities

25. This Order is adopted pursuant to Water Code section 13263, subdivision (a), which provides in pertinent part as follows:

> The regional board, after any necessary hearing, shall prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge…, with relation to the conditions existing in the disposal area or receiving waters upon, or into which, the discharge is made or proposed. The requirements shall implement any relevant water quality control plans that have been adopted, and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Section 13241.

26. Compliance with section 13263, subdivision (a), including implementation of applicable water quality control plans, is discussed in the findings below.

27. The ability to discharge waste is a privilege, not a right, and adoption of this Order shall not be construed as creating a vested right to continue discharging waste. (Wat. Code, § 13263, subd. (g).)

28. This Order and its associated Monitoring and Reporting Program (MRP) are also adopted pursuant to Water Code section 13267, subdivision (b)(1), which provides as follows:

> [T]he regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste … shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports and shall identify the evidence that supports requiring that person to provide the reports.

29. The reports required under this Order, as well as under the separately issued MRP, are necessary to verify and ensure compliance with WDRs. The burden associated with such reports is reasonable relative to the need for their submission.

Basin Plan Implementation

30. Pursuant to Water Code section 13263, subdivision (a), WDRs must “implement any relevant water quality control plans…, and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Section 13241.”

31. This Order implements the Central Valley Water Board's Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fifth Edition, revised May 2018 (Basin Plan), which designates beneficial uses for surface water and groundwater and establishes water quality objectives (WQOs) necessary to preserve such beneficial uses. (See Wat. Code, § 13241 et seq.)

32. Local drainage is to Clear Creek a tributary of the Sacramento River, the beneficial uses as set forth in the Basin Plan are municipal and domestic supply (MUN); agricultural supply (AGR); water contact recreation (REC-1); other noncontact recreation (REC-2); warm freshwater habitat (WARM); cold freshwater habitat (COLD); wildlife habitat (WILD); migration of aquatic organisms (MIGR); and spawning, reproduction and/or early development (SPAWN).

33. As set forth in the Basin Plan, beneficial uses of underlying groundwater at the Facility are municipal and domestic supply (MUN); agricultural supply (AGR); industrial service supply (IND); and industrial process supply (PRO).

34. The Basin Plan establishes narrative water quality objectives for chemical constituents, tastes and odors, and toxicity in groundwater. It also sets forth a numeric objective for total coliform organisms.

35. The Basin Plan's numeric water quality objective for bacteria requires that the most probable number (MPN) of coliform organisms over any seven-day period shall be less than 2.2 per 100 mL in MUN groundwater.

36. The Basin Plan's narrative water quality objectives for chemical constituents, at a minimum, require MUN-designated waters to meet the MCLs specified in Title 22 of the California Code of Regulations (Title 22). The Basin Plan recognizes that the Central Valley Water Board may apply limits more stringent than MCLs to ensure that waters do not contain chemical constituents in concentrations that adversely affect beneficial uses.

37. The narrative toxicity objective requires that groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, animal, plant, or aquatic life associated with designated beneficial uses.

38. Quantifying a narrative water quality objective requires a site-specific evaluation of those constituents that have the potential to impact water quality and beneficial uses. The Basin Plan states that when compliance with a narrative objective is required to protect specific beneficial uses, the Central Valley Water Board will, on a case-by-case basis, adopt numerical limitations in order to implement the narrative objective.

CV-SALTS Programs

39. The Central Valley Water Board adopted Basin Plan amendments incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley at its 31 May 2018 Board Meeting. The Basin Plan amendments were conditionally approved by the State Water Board on 16 October 2019 (Resolution 2019-0057) and by the Office of Administrative Law (OAL) on 15 January 2020 (OAL Matter No. 2019-1203-03).

a. For nitrate, dischargers that are unable to comply with stringent nitrate requirements will be required to take on alternate compliance approaches that involve providing replacement drinking water to persons whose drinking water is affected by nitrates. Dischargers may comply with the new nitrate program either individually or collectively with other dischargers. For the Nitrate Control Program, the Facility is located within Groundwater Basin 5-006.03 (Redding Area - Anderson Sub-basin), a non-prioritized basin. Notices to Comply for non-prioritized basins will be issued based on available resources and as determined necessary by the Executive Officer of the Central Valley Water Board.

b. For salinity, dischargers that are unable to comply with stringent salinity requirements will instead need to meet performance-based requirements and participate in a basin-wide effort to develop a long-term salinity strategy for the Central Valley. Dischargers received a Notice to Comply with instructions and obligations for the Salt Control Program within one year of 17 January 2020, the effective date of the amendments. The Discharger has chosen to pursue Option 2 (Alternative Option for Salt Permitting) and has been assigned CV-SALTS identification number 2420.

40. As these strategies are implemented, the Central Valley Water Board may find it necessary to modify the requirements of these WDRs to ensure the goals of the Salt and Nitrate Control Programs are met. This order may be amended or modified to incorporate newly applicable requirements. More information regarding this regulatory planning process can be found on the Central Valley Water Board's CV-SALTS website (https://www.waterboards.ca.gov/centralvalley/water_issues/salinity).

Compliance with Antidegradation Policy

41. The Statement of Policy with Respect to Maintaining High Quality Waters in California, State Water Board Resolution 68-16 (Antidegradation Policy) prohibits the Central Valley Water Board from authorizing degradation of “high quality waters” unless it is shown that such degradation: (1) will be consistent with the maximum benefit to the people of California; (2) will not unreasonably affect beneficial uses, or otherwise result in water quality less than as prescribed in applicable policies; and (3) is minimized through the discharger’s best practicable treatment or control (BPTC).

42. Groundwater quality monitoring at the Facility dates to 2001. Given the unavailability of pre-1968 water quality information, compliance with the Antidegradation Policy will determined based on existing background water quality (Antidegradation Baseline).

43. Constituents of concern (COCs) that have the potential to degrade groundwater include total dissolved solids, chloride, sulfate, electrical conductivity, molybdenum, arsenic, iron, and manganese as discussed below and in Table 4. Chloride, sulfate, electrical conductivity, and molybdenum are averages from monitoring performed from 2001-2019 and total dissolved solids, iron, and manganese values are from a one-time sampling event performed in June 2020.

Table 4—Constituents of Concern

Constituent	Units	OB-1	OB-2	OB-3A	Water Quality Objective
Total Dissolved Solids	mg/L	197	483	295	500[1]
Chloride	mg/L	14.7	77.4	68.6	250[1]
Sulfate	mg/L	7.32	131	101.6	250[1]
Electrical Conductivity	micromhos per centimeter	249	711	619.5	900[1]
Molybdenum	µg/L	1.9	4.3	8.4	10[2]
Iron	µg/L	6370	2560	638	300[1]
Manganese	µg/L	3480	5240	28.6	50[1]

Table Note 1: Secondary Maximum Contaminant Level for MUN beneficial uses

Table Note 2: Agricultural Water Quality Goals (these are numeric limits supporting the Narrative WQO for AGR beneficial uses under the Basin Plan)

a. **Total Dissolved Solids (TDS).** In the one-time monitoring event for TDS all monitoring wells were below water quality objectives; however, TDS concentration increases in the downgradient monitoring wells, which indicates that degradation to groundwater is occurring due to percolation pond discharge. The discharge is not expected to exceed water quality objectives for TDS.

b. **Chloride.** Historical monitoring shows no exceedances of water quality objectives in all monitoring wells; however, chloride concentrations increase in downgradient monitoring wells, which indicates that degradation to groundwater is occurring due to the percolation pond discharge. The discharge is not expected to exceed water quality objectives.

c. **Sulfate.** Historical monitoring shows no exceedances of water quality objectives in all monitoring wells; however, sulfate concentrations increase in the downgradient monitoring wells, which indicates that degradation to groundwater is occurring due to percolation pond discharge. The discharge is not expected to exceed water quality objectives.

d. **Electrical Conductivity (EC).** Historical monitoring shows that downgradient OB-3A has exceeded water quality objectives seven times since 2001; data indicates that OB-3A has not exceeded water quality objectives within the last five years. Given the average value of electrical conductivity as 619.5 micromhos per centimeter since 2001 in OB-3A and the general decreasing trend of EC the discharge is not expected to exceed water quality objectives.

e. **Molybdenum.** Historical monitoring shows exceedances of molybdenum in downgradient monitoring well OB-3A. The Facility ceased using sodium molybdate approximately 15-years ago, however OB-3A continues to show concentrations of molybdenum in exceedance of the 10 microgram per liter agricultural water quality goals. The general trend of molybdenum in OB-3A is decreasing over time. The current discharge does not contribute to elevated molybdenum in groundwater.

f. **Iron and Manganese.** Current groundwater monitoring data indicate that Facility discharges may have caused (or contributed to) exceedances of WQOs. However, the current assessment is based on Total Recoverable Metals concentrations which are not sufficient to determine compliance with WQOs. This Order requires monitoring of dissolved phase concentrations.

44. This Order prescribes Groundwater Limitations to ensure that Facility discharges will not threaten the present and anticipated beneficial uses of surface water and groundwater or result in water quality less than applicable WQOs.

Compliance with CEQA

45. The issuance of this Order, which prescribes requirements and monitoring of waste discharges at an existing facility, with negligible or no expansion of its existing use is exempt from the procedural requirements of the California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq., pursuant to California Code of Regulations, title 14, section 15301 (CEQA Guidelines). The discharges authorized under this Order are substantially within parameters established under prior WDRs, particularly with respect to character and volume of discharges.

46. To the extent that the construction of any new basins, ponds and/or surface impoundments are authorized under this Order, such features involve minor alterations to land, which are exempt from CEQA procedural requirements pursuant to California Code of Regulations, title 14, section 15304 (CEQA Guidelines).

47. This Order is further exempt from CEQA procedural requirements insofar as it is adopted for protection of the environment and does not authorize construction activities or the relaxation of standards allowing for environmental degradation, in accordance with California Code of Regulations, title 14, section 15308 (CEQA Guidelines).

48. This Order is further exempt from CEQA procedural requirements because it can be seen with certainty that there is no possibility that the discharges and activities authorized herein will have a significant effect on the environment. (See Cal. Code Regs., tit. 14, § 15061, subd. (b)(3) [CEQA Guidelines].)

Other Regulatory Considerations

49. Pursuant to Water Code section 106.3, subdivision (a), it is “the established policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.” Although this Order is not subject to Water Code section 106.3, as it does not revise, adopt or establish a policy, regulation or grant criterion, (see § 106.3, subd. (b)), it nevertheless promotes the policy by requiring discharges to meet maximum contaminant levels (MCLs) for drinking water, which are designed to protect human health and ensure that water is safe for domestic use.

50. For the purposes of California Code of Regulations, title 23 (Title 23), section 2200, the Facility has a threat-complexity rating of 2-B, where:

a. Threat Category “2” reflects waste discharges that can impair receiving water beneficial uses, cause short-term water quality objective violations, cause secondary drinking water standard violations, and cause nuisances; and

b. Complexity Category “B” reflects any discharger not included in Category A, with either (1) physical, chemical or biological treatment systems (except for septic systems with subsurface disposal), or (2) any Class II or Class III WMUs.

51. This Order, which prescribes WDRs for discharges of wastewater, is exempt from the prescriptive requirements of California Code of Regulations, title 27, section 20005 et seq. (See Cal. Code Regs., tit. 27, § 20090, subd. (b).)

52. Statistical data analysis methods outlined in the USEPA's 2009 Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance (Unified Guidance) are appropriate for determining compliance with Groundwater Limitations of this Order. Other methods may be appropriate as well.

53. This Order does not cover stormwater and other discharges that are subject to the Clean Water Act's National Pollution Discharge Elimination System (NPDES). All stormwater is retained on site; therefore, the Facility is not subject to stormwater permitting coverage.

54. The California Department of Water Resources sets standards for the construction and destruction of groundwater wells (hereafter DWR Well Standards), as described in California Well Standards Bulletin 74-90 (June 1991) and Water Well Standards: State of California Bulletin 74-81 (December 1981). These standards, and any more stringent standards adopted by the state or county pursuant to Water Code section 13801, apply to all monitoring wells used to monitor the impacts of wastewater storage or disposal governed by this Order.

Scope of Order

55. This Order is strictly limited in scope to those waste discharges, activities and processes described and expressly authorized herein.

56. Pursuant to Water Code section 13264, subdivision (a), the Discharger is prohibited from initiating the discharge of new wastes (i.e., other than those described herein), or making material changes to the character, volume and timing of waste discharges authorized herein, without filing a new Report of Waste Discharge (ROWD) per Water Code section 13260.

57. Failure to file a new ROWD before initiating material changes to the character, volume or timing of discharges authorized herein, shall constitute an independent violation of these WDRs.

58. This Order is also strictly limited in applicability to those individuals and/or entities specifically designated herein as “Discharger,” subject only to the discretion to designate or substitute new parties in accordance with this Order.

Procedural Matters

59. All the above information, as well as the information contained in the attached Information Sheet (incorporated herein), was considered by the Central Valley Water Board in prescribing the WDRs set forth below.

60. The Discharger, interested agencies and other interested persons were notified of the Central Valley Water Board's intent to prescribe the WDRs in this Order, and provided an opportunity to submit their written views and recommendations at a public hearing. (Wat. Code, § 13167.5.)

61. At a public meeting, the Central Valley Water Board heard and considered all comments pertaining to the discharges regulated under this Order.

62. The Central Valley Water Board will review and revise the WDRs in this Order as necessary.

REQUIREMENTS

IT IS HEREBY ORDERED, pursuant to Water Code sections 13263 and 13267, that the Dischargers shall comply with the following.

A. Discharge Prohibitions

1. Discharge of wastes to surface waters or surface water drainage courses is prohibited.

2. Discharge of waste classified as 'hazardous', as defined in the California Code of Regulations, title 22, section 66261.1 et seq, is prohibited.

3. Treatment system bypass of untreated or partially treated waste is prohibited, except as allowed by Standard Provision E.2 of the Standard Provisions and Reporting Requirements for Waste Discharge Requirements.

4. Discharge of waste at a location or in a manner different from that described in the Findings is prohibited.

5. The Discharger shall not allow toxic substances to be discharged into the wastewater treatment system such that biological treatment mechanisms are disrupted.

B. Flow Limitations

1. Influent flows to the pond shall not exceed 162,720 gallons per day.

C. Discharge Specifications

1. No waste constituent shall be released, discharged, or placed where it will cause a violation of the Groundwater Limitations of this Order.

2. Wastewater treatment, storage, and disposal shall not cause pollution, or a nuisance as defined by Water Code section 13050.

3. The discharge shall always remain within the permitted waste treatment/containment structures and land application areas.

4. The Discharger shall operate all systems and equipment to optimize the quality of the discharge.

5. All conveyance, treatment, storage, and disposal systems shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.

6. Objectionable odors shall not be perceivable beyond the limits of the property at an intensity that creates or threatens to create nuisance conditions.

7. The Discharger shall design, construct, operate, and maintain all ponds sufficiently to protect the integrity of containment dams and berms and prevent overtopping and/or structural failure. The operating freeboard in any pond shall never be less than two feet (measured vertically from the lowest possible point of overflow). As a means of management and to discern compliance with this requirement, the Discharger shall install and maintain in each pond a permanent staff gauge with calibration marks that clearly show the water level at design capacity and enable determination of available operational freeboard.

8. Wastewater storage and disposal ponds or structures shall have sufficient capacity to accommodate allowable wastewater flow, design seasonal precipitation, and ancillary inflow and infiltration during the winter while ensuring compliance with all requirements of this Order. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns.

9. On or about 1 October of each year, available capacity shall at least equal the volume necessary to comply with Discharge Specifications C.8.

10. All ponds and open containment structures shall be managed to prevent breeding of mosquitoes.

11. An erosion control program shall be implemented to ensure that small coves and irregularities are not created around the perimeter of the water surface.

12. Weeds shall be minimized through control of water depth, harvesting, or herbicides.

13. Dead algae, vegetation, and debris shall not accumulate on the water surface.

14. The Discharger shall consult and coordinate with the local Mosquito Abatement District to minimize the potential for mosquito breeding as needed to supplement the above measures.

15. Newly constructed or rehabilitated berms or levees (excluding internal berms that separate ponds or control the flow of water within a pond) shall be designed and constructed under the supervision of a California Registered Civil Engineer.

16. The Discharger shall monitor solids accumulation in the percolation pond at least every five years beginning in 2025 and shall periodically remove sludge as necessary to maintain adequate storage capacity.

D. Groundwater Limitations

1. The discharge shall not cause underlying groundwater to exceed constituent concentrations statistically greater than current background water quality or that exceed the Primary or Secondary MCLs established in Title 22 of the California Code of Regulations, whichever is greater.

2. All compliance monitoring wells, OB-2 and OB-3A, shall not contain constituents in concentrations statistically greater than current background water quality or that exceed the Primary or Secondary MCLs established in Title 22 of the California Code of Regulations.

3. All compliance monitoring wells shall not contain taste or odor-producing constituents, toxic substances, or any other constituents in concentrations that cause nuisance or adversely affect beneficial uses.

E. Solids Disposal Specifications

1. Solid waste refers to grit and screenings generated during cooling tower cleaning.

2. Solid waste shall be removed from the cooling tower sump as needed to ensure optimal plant operation.

3. Solid waste storage at the Facility shall be temporary (i.e., no longer than six months) and controlled and contained in a manner that minimizes leachate formation and precludes infiltration of waste constituents into soils in a mass or concentration that will violate the groundwater limitations of this Order.

4. Residual solid waste shall be disposed of in a manner approved by the Executive Officer and consistent with Title 27, division 2. Removal for further treatment, disposal, or reuse at disposal sites (i.e., landfills, WWTFs, composting sites, soil amendment sites) operated in accordance with valid waste discharge requirements issued by a Regional Water Board will satisfy this specification.

5. Any proposed change in solids disposal practice shall be reported in writing to the Executive Officer at least 90 days in advance of the change.

F. Other Provisions

1. A discharger whose waste flow has been increasing, or is projected to increase, shall estimate when flows will reach hydraulic and treatment capacities of its collection and disposal facilities. The projections shall be made in January, based on the last three years' average dry weather flows, peak wet weather flows and total annual flows, as appropriate. When any projection shows that capacity of any part of the facilities may be exceeded in four years, the discharger shall notify the Central Valley Water Board by 31 January.

2. In accordance with California Business and Professions Code sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain workplans for investigations and studies, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly stated. Each technical report submitted by the Discharger shall bear the professional’s signature and stamp.

3. The Discharger shall submit the technical reports and work plans required by this Order for consideration by the Executive Officer and incorporate comments the Executive Officer may have in a timely manner, as appropriate. Unless expressly stated otherwise in this Order, the Discharger shall proceed with all work required by the foregoing provisions by the due dates specified.

4. The Discharger shall comply with Monitoring and Reporting Program Order R5-2022-00XX, which is part of this Order, and any revisions thereto as ordered by the Executive Officer. The submittal dates of

Discharger self-monitoring reports shall be no later than the submittal date specified in the MRP.

5. The Discharger shall comply with the "Standard Provisions and Reporting Requirements for Waste Discharge Requirements", dated 1 March 1991, which are attached hereto and made part of this Order by reference. This attachment and its individual paragraphs are commonly referenced as "Standard Provision(s)."

6. The Discharger shall comply with all conditions of this Order, including timely submittal of technical and monitoring reports. On or before each report due date, the Discharger shall submit the specified document to the Central Valley Water Board or, if appropriate, a written report detailing compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, then the Discharger shall state the reasons for such noncompliance and provide an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board in writing when it returns to compliance with the time schedule. Violations may result in enforcement action, including Central Valley Water Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.

7. 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. Proper operation and maintenance also include adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by the Discharger when the operation is necessary to achieve compliance with the conditions of this Order.

8. The Discharger shall use the best practicable cost-effective control technique(s) including proper operation and maintenance, to comply with this Order.

9. As described in the Standard Provisions, the Discharger shall report promptly to the Central Valley Water Board any material change or proposed change in the character, location, or volume of the discharge.

10. The Discharger shall not allow pollutant-free wastewater to be discharged into the wastewater collection, treatment, and disposal systems in amounts that significantly diminish the system's capability to comply with

this Order. Pollutant-free wastewater means rainfall, groundwater, cooling waters, and condensates that are essentially free of pollutants.

11. At least 90 days prior to termination or expiration of any lease, contract, or agreement involving disposal or recycling areas or off-site reuse of effluent, used to justify the capacity authorized herein and assure compliance with this Order, the Discharger shall notify the Central Valley Water Board in writing of the situation and of what measures have been taken or are being taken to assure full compliance with this Order.

12. In the event of any change in control or ownership of the Facility, the Discharger must notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to the Central Valley Water Board.

13. To assume operation as Discharger under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Central Valley Water Board, and a statement. The statement shall comply with the signatory paragraph of Standard Provision B.3 and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the Water Code. If approved by the Executive Officer, the transfer request will be submitted to the Central Valley Water Board for its consideration of transferring the ownership of this Order at one of its regularly scheduled meetings.

14. A copy of this Order including the MRP, Information Sheet, Attachments, and Standard Provisions, shall be kept at the discharge facility for reference by operating personnel. Key operating personnel shall be familiar with its contents.

15. The Discharger shall comply with the Basin Plan amendments adopted in Resolution R5-2018-0034 incorporating new programs (Salt and Nitrate Control Programs) for addressing ongoing salt and nitrate accumulation in the Central Valley developed as part of the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative.

16. The Central Valley Water Board will review this Order periodically and will revise requirements when necessary.

LIST OF ATTACHMENTS

Attachment A—Site Location Map
Attachment B—Facility Map

Standard Provisions and Reporting Requirements

Information Sheet

Monitoring and Reporting Program R5-2022-00XX (separate document)

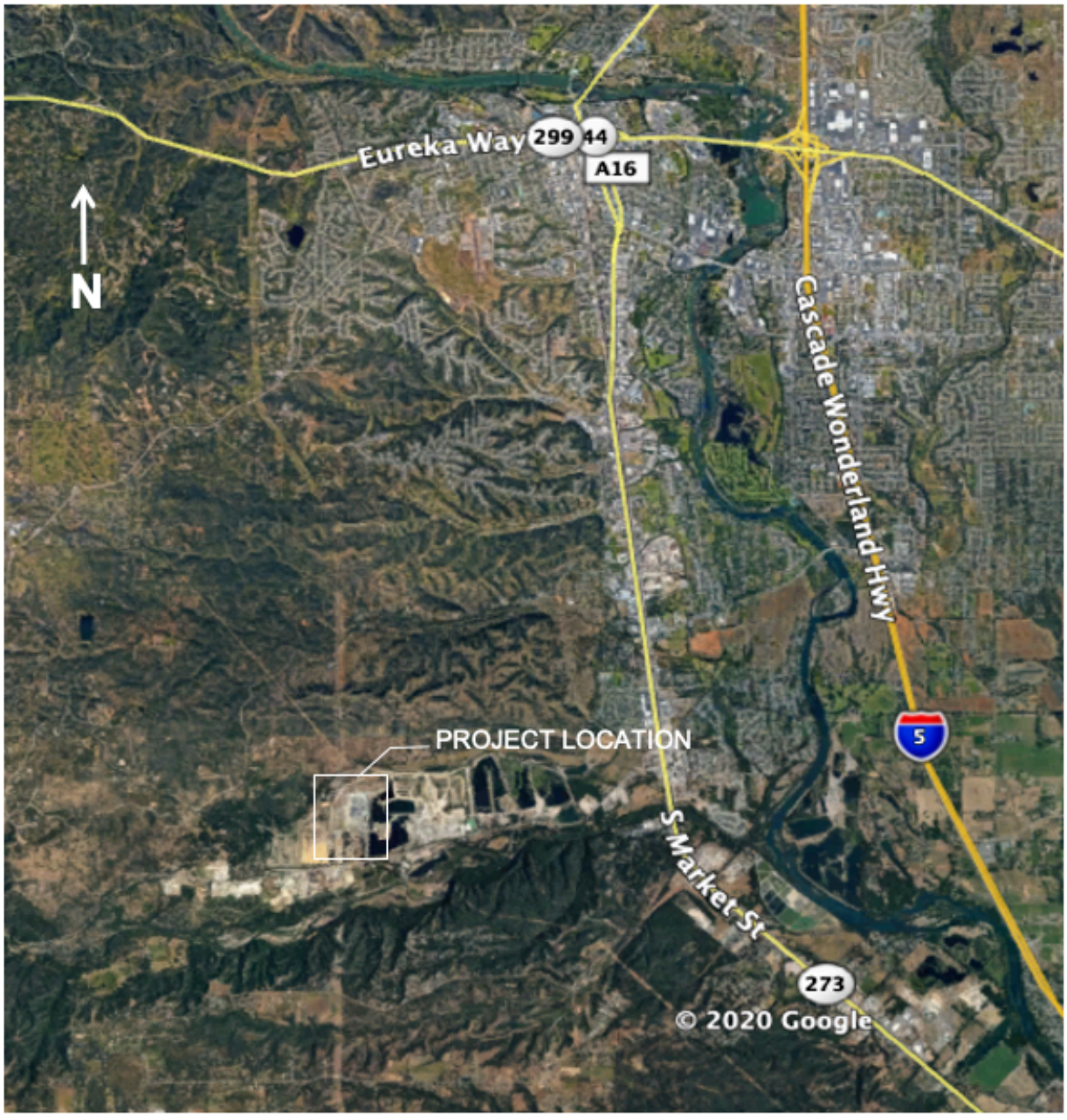
ENFORCEMENT

If, in the opinion of the Executive Officer, the Dischargers fail to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order may result in the assessment of Administrative Civil Liability of up to $10,000 per violation, per day, depending on the violation, pursuant to the Water Code, including sections 13268, 13350 and 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

ADMINISTRATIVE REVIEW

Any person aggrieved by this Central Valley Water Board action may petition the State Water Board for review in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 2050 et seq. To be timely, the petition must be received by the State Water Board by 5:00 pm on the 30th day after the date of this Order; if the 30th day falls on a Saturday, Sunday or state holiday, the petition must be received by the State Water Board by 5:00 pm on the next business day. The law and regulations applicable to filing petitions are available on the State Water Board website (http://www.waterboards.ca.gov/public_notices/petitions/water_quality). Copies will also be provided upon request.

ATTACHMENT A—SITE LOCATION MAP



DRAWING REFERENCE: GOOGLE EARTH MAP DATA: © 2020 GOOGLE NO SCALE	LOCATION MAP CITY OF REDDING REDDING POWER PLANT SHASTA COUNTY

ATTACHMENT B—FACILITY MAP

DRAWING REFERENCE: GOOGLE EARTH MAP DATA: © 2020 GOOGLE NO SCALE	FACILITY MAP REDDING ELECTRIC UTILITY REDDING POWER PLANT SHASTA COUNTY

STANDARD PROVISIONS & REPORTING REQUIREMENTS
FOR WASTE DISCHARGE REQUIREMENTS
1 MARCH 1991 EDITION

A. General Provisions

1. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, or protect the Discharger from liabilities under federal, state, or local laws. This Order does not convey any property rights or exclusive privileges.

2. The provisions of this Order are severable. If any provision of this Order is held invalid, the remainder of this Order shall not be affected.

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

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

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

    c. A change in any condition that results in either a temporary or permanent need to reduce or eliminate the authorized discharge;

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

4. Before making a material change in the character, location, or volume of discharge, the discharger shall file a new Report of Waste Discharge with the Regional Board. A material change includes, but is not limited to, the following:

    a. An increase in area or depth to be used for solid waste disposal beyond that specified in waste discharge requirements.

    b. A significant change in disposal method, location or volume, e.g., change from land disposal to land treatment.

    c. The addition of a major industrial, municipal or domestic waste discharge facility.

    d. The addition of a major industrial waste discharge to a discharge of essentially domestic sewage, or the addition of a new process or

product by an industrial facility resulting in a change in the character of the waste.

5. Except for material determined to be confidential in accordance with California law and regulations, all reports prepared in accordance with terms of this Order shall be available for public inspection at the offices of the Board. Data on waste discharges, water quality, geology, and hydrogeology shall not be considered confidential.

6. The discharger shall take all reasonable steps to minimize any adverse impact to the waters of the state resulting from noncompliance with this Order. Such steps shall include accelerated or additional monitoring as necessary to determine the nature and impact of the noncompliance.

7. The discharger shall maintain in good working order and operate as efficiently as possible any facility, control system, or monitoring device installed to achieve compliance with the waste discharge requirements.

8. The discharger shall permit representatives of the Regional Board (hereafter Board) and the State Water Resources Control Board, upon presentations of credentials, to:

   a. Enter premises where wastes are treated, stored, or disposed of and facilities in which any records are kept,

   b. Copy any records required to be kept under terms and conditions of this Order,

   c. Inspect at reasonable hours, monitoring equipment required by this Order, and

   d. Sample, photograph and video tape any discharge, waste, waste management unit, or monitoring device.

9. For any electrically operated equipment at the site, the failure of which would cause loss of control or containment of waste materials, or violation of this Order, the discharger shall employ safeguards to prevent loss of control over wastes. Such safeguards may include alternate power sources, standby generators, retention capacity, operating procedures, or other means.

10. The fact that it would have been necessary to halt or reduce the permitted activity in Order to maintain compliance with this Order shall not be a defense for the discharger's violations of the Order.

11. Neither the treatment nor the discharge shall create a condition of nuisance or pollution as defined by the California Water Code, Section 13050.

12. The discharge shall remain within the designated disposal area at all times.

B. General Reporting Requirements

1. In the event the discharger does not comply or will be unable to comply with any prohibition or limitation of this Order for any reason, the discharger shall notify the Board by telephone at (916) 464-3291 as soon as it or its agents have knowledge of such noncompliance or potential for noncompliance, and shall confirm this notification in writing within two weeks. The written notification shall state the nature, time and cause of noncompliance, and shall include a timetable for corrective actions.

2. The discharger shall have a plan for preventing and controlling accidental discharges, and for minimizing the effect of such events. This plan shall:

    a. Identify the possible sources of accidental loss or leakage of wastes from each waste management, treatment, or disposal facility.

    b. Evaluate the effectiveness of present waste management/treatment units and operational procedures, and identify needed changes of contingency plans.

    c. Predict the effectiveness of the proposed changes in waste management/treatment facilities and procedures and provide an implementation schedule containing interim and final dates when changes will be implemented.

    The Board, after review of the plan, may establish conditions that it deems necessary to control leakages and minimize their effects.

3. All reports shall be signed by persons identified below:

a. For a corporation: by a principal executive officer of at least the level of senior vice-president.

b. For a partnership or sole proprietorship: by a general partner or the proprietor.

c. For a municipality, state, federal or other public agency: by either a principal executive officer or ranking elected or appointed official.

d. A duly authorized representative of a person designated in 3a, 3b or 3c of this requirement if;

i. the authorization is made in writing by a person described in 3a, 3b or 3c of this provision;

ii. 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 waste management unit, superintendent, or position of equivalent responsibility[1]; and

iii. the written authorization is submitted to the Board

Any person signing a document under this Section shall make the following certification:

> I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of the those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

4. Technical and monitoring reports specified in this Order are requested pursuant to Section 13267of the Water Code. Failing to furnish the reports by the specified deadlines and falsifying information in the reports, are

[1] A duly authorized representative may thus be either a named individual or any individual occupying a named position.

misdemeanors that may result in assessment of civil liabilities against the discharger.

5. The discharger shall mail a copy of each monitoring report and any other reports required by this Order to:

   California Regional Water Quality Control Board
   Central Valley Region
   11020 Sun Center Drive, #200
   Rancho Cordova, CA 95670-6114

C. Provisions for Monitoring

1. All analyses shall be made in accordance with the latest edition of: (1) Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater (EPA 600 Series) and (2) Test Methods for Evaluating Solid Waste (SW 846-latest edition). The test method may be modified subject to application and approval of alternate test procedures under the Code of Federal Regulations (40 CFR 136).

2. Chemical, bacteriological, and bioassay analysis shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. In the event a certified laboratory is not available to the discharger, analyses performed by a noncertified laboratory will be accepted, provided a Quality Assurance-Quality Control Program is instituted by the laboratory. A manual containing the steps followed in this program must be kept in the laboratory and shall be available for inspection by Board staff. The Quality Assurance-Quality Control Program must conform to EPA guidelines or to procedures approved by the Board. Unless otherwise specified, all metals shall be reported as Total Metals.

3. The discharger shall retain records of all monitoring information, including all calibration and maintenance records, all original strip chart recordings of continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order. Records shall be maintained for a minimum of three years from the date of the sample, measurement, report, or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board Executive Officer. Record of monitoring information shall include:

   a. the date, exact place, and time of sampling or measurements,

b. the individual(s) who performed the sampling of the measurements,

c. the date(s) analyses were performed,

d. the individual(s) who performed the analyses,

e. the laboratory which performed the analysis,

f. the analytical techniques or methods used, and

g. the results of such analyses.

4. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated at least yearly to ensure their continued accuracy.

5. The discharger shall maintain a written sampling program sufficient to assure compliance with the terms of this Order. Anyone performing sampling on behalf of the discharger shall be familiar with the sampling plan.

6. The discharger shall construct all monitoring wells to meet or exceed the standards stated in the State Department of Water Resources Bulletin 74-81 and subsequent revisions, and shall comply with the reporting provisions for wells required by Water Code Sections 13750 through 13755.22

D. Standard Conditions for Facilities Subject to California Code of Regulations, Title 23, Division 3, Chapter 15 (Chapter 15)

1. All classified waste management units shall be designed under the direct supervision of a California registered civil engineer or a California certified engineering geologist. Designs shall include a Construction Quality Assurance Plan, the purpose of which is to:

a. demonstrate that the waste management unit has been constructed according to the specifications and plans as approved by the Board.

b. provide quality control on the materials and construction practices used to construct the waste management unit and prevent the use of inferior products and/or materials which do not meet the approved design plans or specifications.

2. Prior to the discharge of waste to any classified waste management unit, a California registered civil engineer or a California certified engineering geologist must certify that the waste management unit meets the construction or prescriptive standards and performance goals in Chapter 15, unless an engineered alternative has been approved by the Board. In the case of an engineered alternative, the registered civil engineer or a certified engineering geologist must certify that the waste management unit has been constructed in accordance with Board-approved plans and specifications.

3. Materials used to construct liners shall have appropriate physical and chemical properties to ensure containment of discharged wastes over the operating life, closure, and post-closure maintenance period of the waste management units.

4. Closure of each waste management unit shall be performed under the direct supervision of a California registered civil engineer or a California certified engineering geologist.

E. Conditions Applicable to Discharge Facilities Exempted from Chapter 15 under Section 2511

1. If the discharger's wastewater treatment plant is publicly owned or regulated by the Public Utilities Commission, it shall be supervised and operated by persons possessing certificates of appropriate grade according to California Code of Regulations, Title 23, Division 4, Chapter 14.

2. By-pass is prohibited. The Board may take enforcement action against the discharger for by-pass unless:

a. (1) By-pass was unavoidable to prevent loss of life, personal injury, or severe property damage,[2] and (2) there were no feasible alternatives to by-pass (e.g., use of auxiliary treatment facilities or retention of untreated waste)[3]; or

b. (1) by-pass is required for essential maintenance to assure efficient operation, (2) neither effluent nor receiving water limitations are exceeded, and (3) the discharger notifies the Board ten days in advance.

The permittee shall submit notice of an unanticipated by-pass as required in paragraph B.1. above.

3. A discharger that wishes to establish the affirmative defense of an upset (see definition in E.6 below) in an action brought for noncompliance shall demonstrate, through properly signed, contemporaneous operating logs, or other evidence, that:

a. an upset occurred and the cause(s) can be identified;

b. the permitted facility was being properly operated at the time of the upset;

c. the discharger submitted notice of the upset as required in paragraph B.1. above; and

d. the discharger complied with any remedial measures required by waste discharge requirements.

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[2] Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a by-pass. Severe property damage does not mean economic loss caused by delays in production

[3] This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a by-pass that would otherwise occur during normal periods of equipment downtime or preventive maintenance.

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

4. A discharger whose waste flow has been increasing, or is projected to increase, shall estimate when flows will reach hydraulic and treatment capacities of its treatment, collection, and disposal facilities. The projections shall be made in January, based on the last three years' average dry weather flows, peak wet weather flows and total annual flows, as appropriate. When any projection shows that capacity of any part of the facilities may be exceeded in four years, the discharger shall notify the Board by 31 January.

5. Effluent samples shall be taken downstream of the last addition of wastes to the treatment or discharge works where a representative sample may be obtained prior to disposal. Samples shall be collected at such a point and in such a manner to ensure a representative sample of the discharge.

6. Definitions

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

   b. The monthly average discharge is the total discharge by volume during a calendar month divided by the number of days in the month that the facility was discharging. This number is to be reported in gallons per day or million gallons per day. Where less than daily sampling is required by this Order, the monthly average shall be determined by the summation of all the measured discharges by the number of days during the month when the measurements were made.

   c. The monthly average concentration is the arithmetic mean of measurements made during the month.

   d. The "daily maximum" discharge is the total discharge by volume during any day.

e. The “daily maximum” concentration is the highest measurement made on any single discrete sample or composite sample.

f. A “grab” sample is any sample collected in less than 15 minutes.

g. Unless otherwise specified, a composite sample is a combination of individual samples collected over the specified sampling period;

i. at equal time intervals, with a maximum interval of one hour

ii. at varying time intervals (average interval one hour or less) so that each sample represents an equal portion of the cumulative flow.

The duration of the sampling period shall be specified in the Monitoring and Reporting Program. The method of compositing shall be reported with the results.

7. Annual Pretreatment Report Requirements:

Applies to dischargers required to have a Pretreatment Program as stated in waste discharge requirements.)

The annual report shall be submitted by 28 February and include, but not be limited to, the following items:

a. A summary of analytical results from representative, flow-proportioned, 24-hour composite sampling of the influent and effluent for those pollutants EPA has identified under Section 307(a) of the Clean Water Act which are known or suspected to be discharged by industrial users.

The discharger is not required to sample and analyze for asbestos until EPA promulgates an applicable analytical technique under 40 CFR (Code of Federal Regulations) Part 136. Sludge shall be sampled during the same 24-hour period and analyzed for the same pollutants as the influent and effluent sampling analysis. The sludge analyzed shall be a composite sample of a minimum of 12 discrete samples taken at equal time intervals over the 24-hour period. Wastewater and sludge sampling and analysis shall be performed at least annually. The discharger shall also provide any influent, effluent or sludge monitoring data for nonpriority pollutants which may be causing or contributing to Interference, Pass Through

or adversely impacting sludge quality. Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 CFR Part 136 and amendments thereto.

b. A discussion of Upset, Interference, or Pass Through incidents, if any, at the treatment plant which the discharger knows or suspects were caused by industrial users of the system. The discussion shall include the reasons why the incidents occurred, the corrective actions taken and, if known, the name and address of the industrial user(s) responsible. The discussion shall also include a review of the applicable pollutant limitations to determine whether any additional limitations, or changes to existing requirements, may be necessary to prevent Pass Through, Interference, or noncompliance with sludge disposal requirements.

c. The cumulative number of industrial users that the discharger has notified regarding Baseline Monitoring Reports and the cumulative number of industrial user responses.

d. An updated list of the discharger's industrial users including their names and addresses, or a list of deletions and additions keyed to a previously submitted list. The discharger shall provide a brief explanation for each deletion. The list shall identify the industrial users subject to federal categorical standards by specifying which set(s) of standards are applicable. The list shall indicate which categorical industries, or specific pollutants from each industry, are subject to local limitations that are more stringent that the federal categorical standards. The discharger shall also list the noncategorical industrial users that are subject only to local discharge limitations. The discharger shall characterize the compliance status through the year of record of each industrial user by employing the following descriptions:

    i. Complied with baseline monitoring report requirements (where applicable);

    ii. Consistently achieved compliance;

    iii. Inconsistently achieved compliance;

    iv. Significantly violated applicable pretreatment requirements as defined by 40 CFR 403.8(f)(2)(vii);

v. Complied with schedule to achieve compliance (include the date final compliance is required);

vi. Did not achieve compliance and not on a compliance schedule;

vii. Compliance status unknown.

A report describing the compliance status of any industrial user characterized by the descriptions in items (d)(3) through (d)(7) above shall be submitted quarterly from the annual report date to EPA and the Board. The report shall identify the specific compliance status of each such industrial user. This quarterly reporting requirement shall commence upon issuance of this Order.

e. A summary of the inspection and sampling activities conducted by the discharger during the past year to gather information and data regarding the industrial users. The summary shall include but not be limited to, a tabulation of categories of dischargers that were inspected and sampled; how many and how often; and incidents of noncompliance detected.

f. A summary of the compliance and enforcement activities during the past year. The summary shall include the names and addresses of the industrial users affected by the following actions:

i. Warning letters or notices of violation regarding the industrial user's apparent noncompliance with federal categorical standards or local discharge limitations. For each industrial user, identify whether the apparent violation concerned the federal categorical standards or local discharge limitations;

ii. Administrative Orders regarding the industrial user's noncompliance with federal categorical standards or local discharge limitations. For each industrial user, identify whether the violation concerned the federal categorical standards or local discharge limitations;

iii. Civil actions regarding the industrial user's noncompliance with federal categorical standards or local discharge limitations. For each industrial user, identify whether the violation concerned the federal categorical standards or local discharge limitations;

iv. Criminal actions regarding the industrial user's noncompliance with federal categorical standards or local discharge limitations. For each industrial user, identify whether the violation concerned the federal categorical standards or local discharge limitations.

v. Assessment of monetary penalties. For each industrial user identify the amount of the penalties;

vi. Restriction of flow to the treatment plant; or

vii. Disconnection from discharge to the treatment plant.

g. A description of any significant changes in operating the pretreatment program which differ from the discharger's approved Pretreatment Program, including, but not limited to, changes concerning: the program's administrative structure; local industrial discharge limitations; monitoring program or monitoring frequencies; legal authority of enforcement policy; funding mechanisms; resource requirements; and staffing levels.

h. A summary of the annual pretreatment budget, including the cost of pretreatment program functions and equipment purchases.

i. A summary of public participation activities to involve and inform the public.

j. A description of any changes in sludge disposal methods and a discussion of any concerns not described elsewhere in the report.

Duplicate signed copies of these reports shall be submitted to the Board and:

Regional Administrator
U.S. Environmental Protection Agency
W-5 75 Hawthorne Street San Francisco, CA 94105

State Water Resource Control Board
Division of Water Quality
P.O. Box 100 Sacramento, CA 95812

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

[TENTATIVE] WASTE DISCHARGE REQUIREMENTS ORDER R5-2022-00XX
FOR
CITY OF REDDING
REDDING POWER PLANT
SHASTA COUNTY

INFORMATION SHEET

The City of Redding (Discharger) owns and operates a 185-megawatt natural gas-fired power plant (Facility) located at 17120 Clear Creek Road, Shasta County. The Facility generates power using one steam and five gas-fired powered turbines for the City of Redding.

Wastewater Disposal

Wastewater generated at the Facility include cooling tower and boiler blowdown, reverse osmosis wastewater, and floor drain water. All wastewater is routed through the steam powered (Unit 4) cooling tower before discharge into a percolation pond. There is no wastewater treatment at the Facility.

Prior to 2002, the Facility used a demineralizer to treat water coming into the plant, the wastewater was discharged to a lined evaporation pond and subsequent land application area. The Facility has replaced the demineralizer with reverse osmosis and routes the associated wastewater to the Unit 4 cooling tower before discharge to the percolation pond. The lined evaporation pond and land application area are no longer in use; however, stormwater accumulates in the pond.

Groundwater Considerations

The Facility is in the Enterprise Flat Hydrologic Area (No. 508.10) of the Redding Hydrologic Unit, as depicted on hydrologic maps prepared by the Department of Water Resources (DWR) in August 1986. The average annual precipitation in the City of Redding is approximately 22.54 inches and the 100-year annual precipitation is approximately 47.48 inches.

Historical groundwater monitoring from 2001-2019 shows that the depth to groundwater ranges from 9-30 feet below ground surface and typically flows towards the south-southeast with an average gradient of 0.057 feet per foot.

Antidegradation and Additional Regulatory Considerations

The Discharger has been monitoring groundwater quality at the site since 2001. Based on available data, it is not possible to determine pre-1968 shallow groundwater quality. Therefore, determination of compliance with Resolution 68-16 for this facility must be based on existing background shallow groundwater quality.

Groundwater data from 2001-2019 shows exceedances of water quality objectives for electrical conductivity (EC) and molybdenum in compliance well OB-3A. The Facility ceased use of sodium molybdate approximately 15-years ago, historical groundwater data from OB-3A shows a decreasing trend in concentration. EC has averaged 619.5 micromhos per centimeter since 2001 and shows a decreasing concentration over time; therefore, shallow groundwater is not expected to be degraded below water quality objectives due to discharge at this Facility.

The discharge and the potential for groundwater degradation allowed in this Order is consistent with the Antidegradation Policy since; (a) the limited degradation allowed by this Order will not result in water quality less than the water quality objectives (WQOs) as defined in the Basin Plan, or unreasonably affect present and anticipated beneficial uses, (b) the Discharger has implemented BPTC to minimize degradation, and (c) the limited degradation is of the maximum benefit to the people of the State.

Monitoring Requirements

Water Code section 13267 authorizes the Central Valley Water Board to require monitoring and technical reports as necessary to investigate the impact of a waste discharge on waters of the State. The monitoring requirements are being imposed to ensure that the Discharger complied with the permit conditions. Water Code section 13268 authorizes the assessment of administrative civil liability for failing to submit monitoring reports required pursuant to Water Code section 13267.

These WDRs include the monitoring and reporting requirements in Monitoring and Reporting Program R5-2022-00XX.

Salt and Nitrate Control Regulatory Program

As part of the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative, the Central Valley Water Board adopted Basin Plan amendments (Resolution R5-2018-0034) incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley at its 31 May 2018 Board Meeting. On 16 October 2019, the State Water Resources Control Board adopted Resolution No. 2019-0057 approving the Central Valley Water Board Basin Plan amendments and also directed the Central Valley Water Board to make targeted revisions to the Basin Plan amendments within one year from the approval of the Basin Plan amendments by the Office of Administrative Law. The Office of Administrative Law approved the Basin Plan amendments on 15 January 2020 (OAL Matter No. 2019-1203-03).

Pursuant to the Basin Plan amendments, dischargers will receive a Notice to Comply with instructions and obligations for the Salt Control Program within one year of the effective date of the amendments (17 January 2020). Upon receipt of the Notice to

Comply, Redding Power Plant will have no more than six months to inform the Central Valley Water Board of their choice between Option 1 (Conservative Option for Salt Permitting) or Option 2 (Alternative Option for Salt Permitting). The level of participation required of dischargers whose discharges do not meet stringent salinity requirements will vary based on factors such as the amount of salinity in the discharge, local conditions, and type of discharge. For the Nitrate Control Program, when the Notices to Comply will be sent out depends on the groundwater basin in which they are located. The CV-SALTS initiative will result in regulatory changes that will be implemented through conditional prohibitions and modifications to many WDRs regionwide, including the WDRs that regulate discharges from the Facility. More information regarding the CV-SALTS regulatory planning process can be found at the following link: (https://www.waterboards.ca.gov/centralvalley/water_issues/salinity/).

Legal Effect of Rescission of Prior WDRs or Orders on Existing Violations

The Board's rescission of prior waste discharge requirements and/or monitoring and reporting orders does not extinguish any violations that may have occurred during the time those waste discharge requirements or orders were in effect. The Central Valley Water Board reserves the right to take enforcement actions to address violations of prior prohibitions, limitations, specifications, requirements, or provisions of rescinded waste discharge requirements or orders as allowed by law.