California Regional Water Quality Control Board
North Coast Region

ORDER NO. R1-2003-0059

NPDES PERMIT NO. CA0023655
ID NO. 1B81202OSON

WASTE DISCHARGE REQUIREMENTS

FOR

SONOMA WEST HOLDINGS, INCORPORATED
WASTEWATER TREATMENT FACILITY, PLANT NO. 2

Sonoma County

The California Regional Water Quality Control Board, North Coast Region (hereinafter Regional Water Board), finds that:

1. Sonoma West Holdings, Inc., (hereinafter Permittee) submitted a Report of Waste Discharge dated June 15, 2000, and applied for renewal of its Permit to discharge treated wastewater under the National Pollutant Discharge Elimination System (NPDES) from its multi-tenant processing facility (Facility) in Sebastopol, California. Additional information was provided on September 20, 2001, and July 22, 2003, describing the Permittee's plan for the discharge of treated domestic wastewater to land.

2. The Permittee operates a multi-tenant food and beverage processing, packaging, storage and warehousing facility. Winery and other beverage related functions and associated support and service activities are the primary activities. The Facility has centralized wastewater treatment and disposal facilities for both process and domestic wastewater.

3. The Facility is located at 2064 Highway 116 North in the community of Sebastopol, in the NW ¼ and SW ¼ of Section 27, T7N, R9W, as shown on Attachment A, incorporated herein and made a part of this Permit.

4. The purpose of this Permit is to renew the Waste Discharge Requirements (WDRs), Order No. 94-7, for the Facility. This Permit regulates the discharge of process wastewater and cold storage defrost water from Outfall No. 001 to Barlow Creek, tributary to Atascadero Creek, tributary to Green Valley Creek, and thence to the Russian River, all waters of the United States. The points of

discharge of process wastewater are located at Latitude 38° 25' 22" North; Longitude 122° 51' 04" West. This Permit does not authorize the discharge of treated domestic wastewater to receiving waters.

5. The Permittee previously operated this Facility as an apple processing facility under the name of Vacu-Dry Company. When operating, the Facility processed approximately 650 tons of dehydrated apples and juice concentrate per day. The process wastewater treatment system was specifically designed and operated for this type of activity and used land application as the primary disposal method. When operating as an apple processing facility, the average process wastewater flow was 175,000 gallons per day (gpd) with maximum flows up to 370,000 gpd.

6. In 1999, the Permittee (doing business as "Vacu-Dry Company") sold its proprietary process and ceased apple processing. Since then, the Permittee has marketed the Facility as a multi-tenant food and beverage processing facility and has leased space to several commercial enterprises. As of January 2003, the Facility had eight tenants that cumulatively generated an average flow of 5,000 gpd with a maximum of 11,000 gpd. Of the eight tenants, six are wineries, one is a beverage producer, and one is a specialty pea and rice dehydrated chip processor. Peak flows are generated during the fall months corresponding with the local grape harvest. The Permittee has performed a water balance analysis and estimated the capacity of the Facility as a peak daily flow of 368,000 gpd and an average daily flow during the peak harvest month of 173,000 gpd.

7. The design and operation of the process wastewater treatment system is specifically suited to treat organic wastes from beverage and food operations. The system is not designed to treat process wastes from other types of industrial activity. Therefore, the Permit contains provisions restricting the types of waste that may ultimately be treated by the centralized treatment system. A schematic drawing of the process and domestic wastewater treatment systems has been included as Attachment B.

8. The Facility's wastewater treatment and disposal systems are comprised of:

<u>Domestic Wastewater Treatment System</u>

The Permittee's domestic wastewater treatment system is designed to provide treatment for a peak flow of 6,000 gpd and an average flow of 2,720 gpd, equivalent to a peak employee day of 400 full time employees and an average employee day of 182. Treatment includes four septic tanks and an aerated domestic wastewater pond. Treated wastewater is currently retained within the aerated domestic wastewater pond. Treated domestic wastewater may be pumped from the domestic wastewater pond to a spray irrigation system located on Bench No. 1. (A bench is a plot of ground that has been modified with spray irrigation facilities and contoured to facilitate irrigation runoff collection). Any runoff (tailwater) from the bermed area of Bench No. 1 will be collected along its

downgradient terminus by a constructed berm and allowed to percolate and/or evaporate. During storm events while the Facility is not discharging to Bench No. 1, the storm water runoff from Bench No. 1 may be discharged to Barlow Creek if the following criteria are met: (1) the first one inch of storm water runoff is captured and returned to the wastewater pond and (2) prior to storm water runoff discharge to Barlow Creek, a sample is collected for analysis as described in Monitoring and Reporting Program No. R1-2003-0059.

The Permittee has complied with all setback requirements in the Water Quality Control Plan, North Coast Region (Basin Plan), has completed application and percolation tests to determine the appropriate application rates, and will construct the downgradient berm to ensure that tailwater is not commingled with process wastewater tailwater from the other benches. To ensure compliance with the coliform bacteria effluent limitations, the Permittee has installed an effluent filter on the end of the fourth septic tank and chlorine disinfection equipment. These additions to the treatment system must be completed prior to the initiation of land application of domestic wastewater. Additional provisions regulating the land application of domestic wastewater have been included in this Permit.

Process Wastewater Treatment System

The process wastewater treatment system is comprised of a segregated process wastewater collection sewer within each building, a centralized collection sump, rotary screen for large solids removal, a second settling sump equipped with overflow weir, and a third sump where oil and grease can be removed if necessary. Process wastewater gravity flows from the third sump to an irrigation sump and pumped either to overland flow treatment fields, the primary treatment pond (transfer pond) or the aerated storage pond (Lake Davis).

The Permittee uses seven benches for wastewater treatment and land application purposes. Benches Nos. 1, 2, 3, and 7 are operated as primary benches. The total area of the primary benches is 16.2 acres. These benches are used as overland flow treatment fields included in the wastewater treatment process. Tailwater from Benches Nos. 1, 2, and 3 gravity flows to the transfer pond while tailwater from Bench 7 requires pumping. From the transfer pond, process wastewater can be pumped either to the primary benches, secondary benches or to the aerated storage pond. Benches Nos. 4, 5, and 6 are secondary benches, meaning flows directed to these benches have been previously applied to one of the primary benches and recollected as tailwater. The total area of the secondary benches is approximately 7.6 acres. Tailwater from all secondary benches is pumped to the aerated storage pond. All benches are used to grow pasture grasses and are principally used during the summer dry season when direct discharge to Barlow Creek is prohibited. During times of heavy precipitation or when the benches are saturated, process wastewater is pumped directly to the storage pond. Provisions governing the application of process wastewater have been included in this Permit.

The 6-acre storage pond (Lake Davis) has a capacity of 15 million gallons and is equipped with an aeration system. Process wastewater collected in the storage pond can be disposed of in two ways. Process wastewater can flow by gravity back to the transfer pond where it can be pumped to either the primary or secondary benches for irrigation or, during the wet season of the year, treated effluent in compliance with Permit conditions may be discharged directly to Barlow Creek. At the current rate of wastewater generation, the Permittee has documented that the Facility has sufficient capacity to hold all process wastewater generated during both the dry and wet seasons, except potentially during extreme storm events. During storm events while the Facility is not discharging to the benches, the storm water runoff from Bench Nos. 1 through 7 may be discharged to Barlow Creek if the following criteria are met: (1) the first one inch of stormwater runoff is captured and returned to Lake Davis and (2) prior to storm water runoff discharge to Barlow Creek, a sample is collected for analysis as described in Monitoring and Reporting Program No. R1-2003-0059.

Cold Storage Defrost Wastewater

The Facility also has a large cold storage facility. The cold storage facility is not currently in use, but may require occasional defrosting if it is operated in the future. Dedicated piping at the cold storage facility previously directed defrost wastewater directly to Barlow Creek. Such discharges directly to Barlow Creek are prohibited. At peak operational capacity, up to 20,000 gpd can be generated. Analytical results provided in the Report of Waste Discharge show that samples of the defrost wastewater contain 3.7 mg/l of Chemical Oxygen Demand (COD), 3.1 mg/l of Total Organic Carbon (TOC), 0.3 mg/l of Total Suspended Solids (TSS), and 0.1 mg/l of Ammonia (as N). Temperatures ranged between 11.6 ^{o}C in winter to 17.1 ^{o}C in summer. Until more information about the defrost wastewater is available, this Permit requires this wastewater to be discharged to Lake Davis and commingled with the process wastewater. The addition of cold storage defrost water is expected to be insignificant compared to the volume of industrial process wastewater.

9. Required Operational Changes and Discharge Prohibitions.

This Permit reduces the number of authorized discharge locations regulated by this Permit and also establishes the following operational provisions and discharge prohibitions:

Domestic Wastewater Treatment and Disposal

The Permittee is no longer authorized to commingle untreated, partially treated, or treated domestic wastewater with any process wastewaters. The discharge of

treated domestic wastewater to receiving water is prohibited. Provided that effluent limitations are met, the Permittee is authorized to discharge treated domestic wastewater to the bermed area of Bench No. 1 via spray irrigation. The Permittee must comply with all local, state and federal environmental and public health requirements. The Permittee shall adhere to all requirements regarding the operation and maintenance of treatment, storage, and irrigation equipment and shall be prohibited from irrigating in advance, during, or after certain climatic events as specified in this Permit.

This Permit requires an operational change for Bench No. 1, as 1.8 acres of this bench is to be bermed and separated and will exclusively receive treated domestic wastewater. The remainder of Bench No. 1 outside of the bermed area will receive process wastewater. The tailwater collection system for Bench No. 1 shall be modified to retain all tailwater, preventing commingling of domestic and process tailwaters.

Process Wastewater Treatment and Disposal

This Permit requires the Permittee to: (1) minimize the discharge of process wastewater to Barlow Creek, specifically limiting discharges to when the volume of wastewater would jeopardize the safe operation of the storage pond; (2) limit, to the maximum extent practicable, inflow of uncontaminated storm water into the process wastewater collection system, including the storage pond and, (3) develop and update annually a plan to maximize the volume of treated wastewater that is reclaimed, reused, and/or land applied. If discharges are required, seasonal discharge prohibitions will remain in effect (i.e., no discharge is allowed from May 15 through September 30).

Acceptance Criteria and Operational Provisions for Discharges from New Tenants

Prospective tenants shall be limited to wine, beverage and food processing. Meat processing, businesses producing or utilizing hazardous wastes such as high proof alcohol, and businesses not generating an organic waste stream such as vehicle maintenance and light or heavy industry are prohibited.

The Permittee shall require a written statement by the new tenant certifying that toxic or otherwise deleterious substances will not be discharged and that they will immediately notify the Permittee if the quality or quantity of discharge is anticipated to change. Additionally, the tenant must certify in writing that they have read and intend to implement the Facility-Wide Operational Best Management Practices (BMPs) Manual established by the Permittee.
The Permittee shall produce a “Facility-Wide Operational BMPs Manual” that outlines waste minimization procedures, pretreatment requirements and discharge prohibitions for their tenants. The document shall be received by the Executive Officer for review and comment within 90 days of the adoption of this Permit. Once approved by the Executive Officer, the Permittee shall require all tenants to

adhere to the provisions of the document and shall insert this requirement into all lease agreements. The document shall be updated annually throughout the term of the Permit.

Surface Water Discharge System

Under the previous Permit, the Facility was authorized to discharge secondarily treated domestic wastewater to the receiving waters of Barlow Creek, a tributary of Atascadero Creek. Additionally, the Facility was authorized to commingle domestic and process wastewaters prior to land application and/or discharge to the receiving waters. Consistent with the Basin Plan, these practices are no longer authorized under this Permit and secondarily treated domestic wastewaters are not to be discharged to receiving waters or commingled with process wastewaters.

Direct discharge to Barlow Creek is prohibited during the summer dry season (May 15 through September 30) and from October 1 through May 14 is limited to only excess wastewater as needed to safely operate the storage pond. At no time shall the discharge exceed more than one percent of the flow of Atascadero Creek as measured at the Occidental Road Bridge.

Authorized Discharge Locations

The previous Permit established nine distinct outfalls (Discharge Serials 001 – 009) to the irrigated benches and Barlow Creek and its tributaries. This Permit reduces the number of authorized discharge locations to three (001, 002 and 003). The other six discharge locations were previously used for currently prohibited discharges or for storm water discharges and are not regulated by this Permit. This Permit prohibits the discharges of wastewater from the primary or secondary benches to Barlow Creek. The authorized discharges are described as follows:

a. Discharge Serial 001: Outfall for discharge of treated process wastewater from Lake Davis to Barlow Creek.
b. Discharge Serial 002: Discharge of treated process wastewater to Bench Nos. 1, 2, 3, 4, 5, 6 and 7.
c. Discharge Serial 003: Discharge of treated domestic wastewater to Bench No. 1.

10. This Facility is a minor discharger as defined by the U.S. Environmental Protection Agency.

11. All WDRs in the North Coast Region are required to implement the *Water Quality Control Plan for the North Coast Region* (Basin Plan). Therefore, this

Permit requires the Permittee to comply with all applicable Basin Plan provisions, including any prohibitions and water quality objectives, governing the discharge.

12. The Basin Plan includes beneficial uses, water quality objectives, implementation plans for point source and nonpoint source discharges, prohibitions and statewide plans and policies. The Basin Plan also includes a prohibition against discharge to the Russian River and its tributaries during the period of May 15 through September 30 and all other periods when the waste discharge flow is greater than one percent of the receiving stream's flow.

13. The Basin Plan contains a narrative objective (standard) for toxicity that requires:

    a. All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, bioassay of appropriate duration or other appropriate methods as specified by the Regional Water Board.

    b. The survival of aquatic life in surface waters subjected to a waste discharge, or other controllable water quality factors, shall not be less than that for the same water body in areas unaffected by the waste discharge, or when necessary for other control water that is consistent with the requirements for "experimental water" as described in *Standard Methods for the Examination of Water and Wastewater 18th Edition* (1992). At a minimum, compliance with this objective as stated in the previous sentence shall be evaluated with a 96-hour bioassay.

    c. In addition, effluent limits based upon acute bioassays of effluent will be prescribed. Where appropriate, additional numerical receiving water objectives for specific toxicants will be established as sufficient data become available, and source control of toxic substances will be encouraged.

14. The beneficial uses of the Russian River and its tributaries include:

    a. municipal and domestic supply
    b. agricultural supply
    c. industrial service supply
    d. industrial process supply
    e. groundwater recharge
    f. navigation
    g. hydropower generation
    h. water contact recreation
    i. non-contact water recreation
    j. commercial and sport fishing
    k. warm freshwater habitat

l. cold freshwater habitat
m. wildlife habitat
n. migration of aquatic organisms
o. spawning, reproduction, and/or early development
p. estuarine habitat
q. aquaculture

15. Beneficial uses of areal groundwater include:

a. domestic water supply
b. agricultural water supply
c. industrial service supply
d. industrial process supply

Effluent limitations, and toxic and pretreatment effluent standards established pursuant to Sections 208(b), 301, 302, 303(d), 304, 306, and 307 of the Clean Water Act (CWA) and amendments thereto are applicable to the Permittee.

16. U.S. EPA regulations (40 CFR 122.44(d)(1)(i)) require achievement of applicable water quality criteria and objectives for toxic pollutants through the establishment of effluent limitations for all pollutants "which the Director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality."

17. On May 18, 2000, the U.S. EPA promulgated numeric criteria for priority pollutants for the State of California [known as the *California Toxics Rule* (CTR) and codified at 40 CFR Section 131.38]. In the CTR, U.S. EPA promulgated criteria that protect the general population at an incremental cancer risk level of one in a million (10^{-6}), for all priority toxic pollutants regulated as carcinogens. The CTR also provides a schedule of compliance not to exceed 5 years from the date of permit renewal for an existing Permittee if the Permittee demonstrates that it is infeasible to promptly comply with the CTR criteria.

The State Water Resources Control Board (State Water Board) adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (also known as the State Implementation Plan or SIP) on March 2, 2000. All provisions of the SIP became effective as of May 22, 2000.

The SIP applies to discharges of toxic pollutants into the inland surface waters, enclosed bays, and estuaries of California subject to regulation under the State's Porter-Cologne Water Quality Control Act (Division 7 of the California Water Code (CWC)) and the federal CWA. The SIP establishes: (1) implementation provisions for priority pollutant criteria promulgated by the U.S. EPA through the National Toxics Rule (NTR) and through the California Toxics Rule (CTR), and for priority pollutant objectives established by Regional Water Boards in their water quality control plans (basin plans); (2) monitoring requirements for 2,3,7,8-TCDD equivalents; and (3) chronic toxicity control provisions.

18. In accordance with the methodology presented in Section 1.3 of the SIP (the Reasonable Potential Analysis or RPA), the most stringent applicable water quality objectives and criteria contained in the Basin Plan, the NTR, and the CTR have been compared to available effluent and background data to determine the need for effluent limitations for toxic pollutants. For toxic pollutants that show a "reasonable potential," water quality based effluent limitations (WQBELs) have been established in accordance with Section 1.4 of the SIP. For the pollutants on the CWA 303(d) list, no background concentration data is necessary for RPA.

19. In general, the toxic effects of metals increase with decreasing concentrations of hardness in the receiving water; and therefore, some CTR criteria are hardness dependent. A background hardness level of 88 mg/L, based on analysis of samples collected on March 17, 2003, from Atascadero Creek, has been used to determine reasonable potential. In establishing effluent limitations for toxic pollutants within this Order, the Regional Water Board has also not accounted for dilution of the discharge by the receiving water. Section 1.4.2 of the SIP permits an allowance for dilution only after characterization of the receiving water flow by the Discharger is completed to determine a dilution ratio and/or whether or not a dilution credit is appropriate; and, in these circumstances there are insufficient data to make such a determination.

20. There are three triggers in determining reasonable potential.

    a. The first trigger is reached when the observed, maximum effluent concentration (MEC) is greater than the lowest applicable water quality objective or criterion (C).

    b. The second trigger is reached if the observed background concentration (B) is greater than C, and the MEC is less than C.

    c. The third trigger is activated after a review of other information determines that a Water Quality Based Effluent Limitation (WQBEL) is required to protect beneficial uses even though both MEC and B are less than C.

21. Based on analysis of effluent samples collected on November 13, 2002, and March 17, 2003, the Regional Water Board, using methods presented in the SIP, finds that the discharge demonstrates reasonable potential to cause or contribute to in-stream excursions above applicable water quality standards for cadmium, copper, cyanide, nickel, selenium and zinc.

22. *Cadmium*. On November 13, 2002, cadmium was detected in an effluent sample at 6.4 µg/l, above the CTR fresh water criterion of 2.2 µg/l for the protection of aquatic life due to chronic exposure. Because the discharge of treated wastewater shows a reasonable potential to exceed applicable criteria for the protection of aquatic life, this Permit establishes the following WQBELs for cadmium, applicable to discharges from Discharge Serial No. 001.

Cadmium – Final Effluent Limitations

Average Monthly Effluent Limitation (AMEL)	Maximum Daily Effluent Limitation (MDEL)
1.8 µg/l	3.7 µg/l

23. *Copper*. On November 13, 2002, copper was detected in an effluent sample at 53 µg/l, above the CTR fresh water criterion of 9.0 µg/l for the protection of aquatic life due to chronic exposure. Because the discharge of treated wastewater shows a reasonable potential to exceed applicable criteria for the protection of aquatic life, this Permit establishes the following WQBELs for copper, applicable to discharges from Discharge Serial No. 001.

Copper – Final Effluent Limitations

Average Monthly Effluent Limitation (AMEL)	Maximum Daily Effluent Limitation (MDEL)
6.2 µg/l	12.4 µg/l

24. *Cyanide*. On November 13, 2002, cyanide was detected in an effluent sample at 75 µg/l, above the CTR fresh water criterion of 5.2 µg/l for the protection of aquatic life due to chronic exposure. Because free cyanide is highly toxic to fish and other aquatic organisms, and the discharge of treated wastewater shows a reasonable potential to exceed applicable criteria for the protection of aquatic life, this Permit establishes the following WQBELs for cyanide, applicable to discharges from Discharge Serial No. 001.

Cyanide – Final Effluent Limitations

Average Monthly Effluent Limitation (AMEL)	Maximum Daily Effluent Limitation (MDEL)

4.3 µg/l	8.5 µg/l

25. *Nickel*. On November 13, 2002, nickel was detected in an effluent sample at 170 µg/l, above the CTR fresh water criterion of 52 µg/l for the protection of aquatic life due to chronic exposure. Because the discharge of treated wastewater shows a reasonable potential to exceed applicable criteria for the protection of aquatic life, this Permit establishes the following WQBELs for nickel, applicable to discharges from Discharge Serial No. 001.

Nickel – Final Effluent Limitations

Average Monthly Effluent Limitation (AMEL)	Maximum Daily Effluent Limitation (MDEL)
38.3 µg/l	76.9 µg/l

26. *Selenium*. On November 13, 2002, selenium was detected in an effluent sample at 6 µg/l, above the CTR fresh water criterion of 5.0 µg/l for the protection of aquatic life due to chronic exposure. Because the discharge of treated wastewater shows a reasonable potential to exceed applicable criteria for the protection of aquatic life, this Permit establishes the following WQBELs for selenium, applicable to discharges from Discharge Serial No. 001.

Selenium – Final Effluent Limitations

Average Monthly Effluent Limitation (AMEL)	Maximum Daily Effluent Limitation (MDEL)
4.1 µg/l	8.2 µg/l

27. *Zinc*. On November 13, 2002, zinc was detected in an effluent sample at 6000 µg/l, on March 17, 2003 zinc was detected in an effluent sample at 140 µg/l, above the CTR fresh water criterion of 120 µg/l for the protection of aquatic life due to chronic and acute exposure. Because the discharge of treated wastewater shows a reasonable potential to exceed applicable criteria for the protection of aquatic life, this Permit establishes the following WQBELs for zinc, applicable to discharges from Discharge Serial No. 001.

Zinc – Final Effluent Limitations

Average Monthly Effluent Limitation (AMEL)	Maximum Daily Effluent Limitation (MDEL)
53.6 µg/l	107.5 µg/l

28. The Permittee was previously classified as an apple and fruit processing facility as defined in by Standard Industrial Classification (SIC) codes 2034 Dried and Dehydrated Fruits, Vegetables, and Soup Mixes, and 2033 Canned Fruits,

Vegetables, Preserves, Jams and Jellies. Federal regulations allow the discharge of 0.4 pounds of BOD per ton of raw product processed apple juice and 0.7 pounds of BOD per ton of raw product processed for other apple products. The limitation for total suspended solids is 1.25 times the allowable effluent BOD concentration. Due to the reduction in apple processing, the multi-tenant nature of the Facility and the variability of process wastestreams, these federal effluent guidelines are no longer applicable.

29. The permitted discharge is consistent with the anti-degradation provision of 40 CFR 131.12 and State Water Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California." The effect of the discharge on existing water quality is insignificant.

30. The Russian River is listed as an impaired water body for sediment pursuant to Section 303(d) of the CWA. A Total Maximum Daily Load has not been established to address sediment loadings. Aspects of the sediment impairing the Russian River include settleable solids, suspended solids, and turbidity. The impact of settleable solids results when they collect on the bottom of a waterbody over time, making them a persistent or accumulative constituent. The impact of suspended solids and turbidity, by contrast, results from their concentration in the water column. An analysis of the Permittee's discharge determined that the discharge does not contain sediment (i.e., settleable solids, suspended solids, and turbidity) at levels that will cause, have the reasonable potential to cause, or contribute to increases in sediment levels in the Russian River. Analytical data of the treated process wastewater indicated 0.1 mg/l of TSS. This finding is based in part on the use of land application and the level of treatment provided, which removes all settleable solids and reduces total suspended solids and turbidity to negligible levels. The summer discharge prohibition, the winter discharge limitations, and the results of previous solids monitoring also support this finding.

31. The action to renew an NPDES Permit is exempt from the California Environmental Quality Act (CEQA) (Public Resources Code Section 21100, et seq.), in accordance with Section 13389 of the CWC. (*City of Burbank v. State Water Resources Control Board* (2003) ___ Cal.App.4th ___; 4 Cal.Rptr.3d 27, 39-41.)

32. The Regional Water Board has notified the Permittee and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations.

33. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.

34. This Permit will serve as a National Pollutant Discharge Elimination System

Permit pursuant to Section 402 of the CWA, or amendments thereto, and will take effect upon adoption by the Regional Water Board.

THEREFORE, IT IS HEREBY ORDERED that Waste Discharge Requirements Order No. 94-7 is rescinded and the Permittee, in order to meet the provisions contained in Division 7 of the CWC and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, shall comply with the following:

A. DISCHARGE PROHIBITIONS

1. The discharge of any waste not disclosed by the Permittee and of any waste disclosed by the Permittee but not reasonably anticipated to occur is prohibited.

2. Creation of a pollution, contamination, or nuisance, as defined by Section 13050 of the CWC, is prohibited.

3. The discharge of waste to land that is not under the control of the Permittee is prohibited, except as authorized under section **F. SOLIDS DISPOSAL AND HANDLING REQUIREMENTS**.

4. The discharge of untreated or partially treated process waste from anywhere within the collection, treatment, or disposal facility is prohibited except as described as an authorized discharge location in this Permit.

5. The discharge of wastewater, other than process wastewater and cold storage defrost wastewater, into the process wastewater treatment system is prohibited.

6. Treated process wastewater shall not be applied to the bench irrigation areas within 24 hours of a forecasted rain event, during rainfall, 24 hours after a rainfall event or when soils are saturated.

7. Cold storage defrost water shall only be discharged to Lake Davis. The direct discharge of cold storage defrost wastewater to Barlow Creek is prohibited.

8. The discharge of treated process wastewater from the aerated storage lagoon to Barlow Creek during the period May 15 through September 30 each year is prohibited.

9. During the period of October 1 through May 14, discharges of process wastewater shall not exceed one percent of the flow of Atascadero Creek as measured at the Occidental Road Bridge.

10. The discharge of domestic waste, treated or untreated, to surface waters is prohibited.

11. The use of treated domestic wastewater shall be restricted to designated irrigation bench No. 1 under the control of the Permittee.

12. Treated domestic wastewater shall not be applied to the designated bench irrigation area within 24 hours of a forecasted rain event, during rainfall, 24 hours after a rainfall event or when soils are saturated.

13. The discharge of waste classified as "hazardous," or "designated," as defined in CCR, Title 23, Chapter 15, Section 2521(a) and CWC Section 13173, respectively, to any part of the domestic and/or process wastewater disposal systems is prohibited.

14. The average daily dry weather flow (ADWF) of waste discharged from the Facility shall not exceed 0.17 million gallons per day (mgd), as determined from the lowest consecutive 30-day mean daily flow. The peak daily flow shall not exceed 0.37 mgd.

B. EFFLUENT LIMITATIONS

1. Discharge of Treated Process Wastewater to Barlow Creek (Discharge Serial 001)

Representative samples of the effluent taken prior to discharge of treated process wastewater to Barlow Creek shall not contain constituents in excess of the following limits:

Constituent	Unit	Monthly Average	Daily Maximum
BOD (20° C, 5-day)	mg/l		80
	lb/day		525
Total Suspended Solids	mg/l		80
	lb/day		837
Settleable Solids	ml/l		0.2
Hydrogen Ion	pH Units		Not less than 6.5 nor greater than 8.5

Constituent	Unit	Monthly Average	Daily Maximum
Temperature	^{o}C		27
COD	mg/l		50
Cadmium	µg/l	1.8	3.7
Copper	µg/l	6.2	12.4
Cyanide	µg/l	4.3	8.5
Nickel	µg/l	38.3	76.9
Selenium	µg/l	4.1	8.2
Zinc	µg/l	53.6	107.5

a. There shall be no acute toxicity in the effluent as demonstrated by survival of test fish in 96-hour flow through or static acute toxicity bioassay in undiluted

effluent discharged to Barlow Creek. Effluents are considered acutely toxic when there is:

i. less than 90 percent survival 70 percent of the time based on any monthly median, or

ii. less than 70 percent survival 100 percent of the time. Compliance with this acute toxicity effluent limitation shall be determined by the results of toxicity tests as specified in Monitoring and Reporting Program No. R1-2003-0059.

b. Chronic toxicity in the effluent shall not exceed 1.0 TUc. Compliance with this chronic toxicity effluent limitation shall be determined by the results of toxicity tests as specified in Monitoring and Reporting Program No. R1-2003-0059.

2. Discharge of Treated Domestic Wastewater to the bermed area of Irrigation Bench No. 1 (Discharge Serial 003)

Representative samples of the effluent taken prior to discharge to Bench 1 shall not contain constituents in excess of the following limits:

Constituent	Unit	Monthly Average	Daily Maximum
BOD (20° C, 5-day)	mg/l	50	80
Total Suspended Solids	mg/l	50	80

a. The disinfected effluent shall not contain concentrations of total coliform bacteria exceeding the following limitations:

i. The median concentration of the results of bacteriological analyses from samples collected during any calendar month shall not exceed a Most Probable Number (MPN) of 23 per 100 milliliters.

ii. No sample shall exceed an MPN of 240 per 100 milliliters.

b. The mean daily flow of domestic waste to the domestic waste treatment system shall not exceed 6,000 gpd measured as a daily maximum.

3. Wastewater in Storage

Representative samples of the wastewater stored in Lake Davis shall not contain constituents in excess of the following limits during discharge to the irrigation benches:

Constituent	Unit	Daily Maximum
BOD (20° C, 5-day)	mg/l	80
Total Suspended Solids	mg/l	80
Settleable Solids	ml/l	1.0
Hydrogen Ion	pH Units	Not less than 6.5 nor greater than 8.5

C. RECEIVING WATER LIMITATIONS

1. The waste discharge shall not cause the dissolved oxygen concentration of the receiving waters to be depressed below 7.0 mg/l. In the event that the receiving waters are determined to have dissolved oxygen concentration of less than 7.0 mg/l, the discharge shall not depress the dissolved oxygen concentration below the existing level.

2. The discharge shall not cause the pH of the receiving waters to be depressed below 6.5 nor raised above 8.5. Within this range, the discharge shall not cause the pH of the receiving waters to be changed at any time more than 0.5 units from that which occurs naturally.

3. The discharge shall not cause the turbidity of the receiving waters to be increased more than 20 percent above naturally occurring background levels.

4. The discharge shall not cause the receiving waters to contain floating materials, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses.

5. The discharge shall not cause the receiving waters to contain taste or odor-producing substances in concentrations that impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin, that cause nuisance, or that adversely affect beneficial uses.

6. The discharge shall not cause aesthetically undesirable discoloration of the receiving waters.

7. The discharge shall not cause bottom deposits in the receiving waters to the extent that such deposits cause nuisance or adversely affect beneficial uses.

8. The discharge shall not contain concentrations of biostimulants which promote objectional aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses of the receiving waters.

9. The discharge shall not cause the receiving waters to contain toxic substances in concentrations that are toxic to, degrade, or that produce detrimental physiological responses in humans or animals or cause acute or chronic toxicity in plants or aquatic life.

10. The discharge shall not cause a measurable temperature change in the receiving waters.

11. The discharge shall not cause bioaccumulation of pesticide, fungicide, wood treatment chemical, or other toxic pollutant concentrations in bottom sediments or aquatic life to levels, which are harmful to human health.

12. The discharge shall not cause the receiving waters to contain oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water that cause nuisance or that otherwise adversely affect beneficial uses.

13. This discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Water Board or the State Water Board as required by the Federal Water Pollution Control Act, and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act, or amendments thereto, the Regional Water Board will revise and modify this Permit in accordance with such more stringent standards.

14. The discharge shall not cause concentrations of contaminants to occur at levels which are harmful to human health in waters which are existing or potential sources of drinking water.

15. The discharge shall not cause concentrations of toxic pollutants in the water column, sediments, or biota that adversely affect beneficial uses.

D. GROUNDWATER LIMITATIONS

The collection, storage, and use of wastewater shall not cause or contribute to a significant degradation of groundwater quality.

E. GROUNDWATER MONITORING AND REPORTING

No later than **March 5, 2004**, the Permittee shall submit a Groundwater Monitoring and Reporting Plan. This Plan shall include a proposal to install groundwater monitoring wells upgradient and downgradient from the disposal area to characterize and monitor the groundwater quality.

F. SOLIDS DISPOSAL AND HANDLING REQUIREMENTS

1. All collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of in a municipal solid waste landfill, reused by land application, disposed of in a sludge-only landfill, incinerated, or taken to another legal point of disposal in accordance with 40 CFR Parts 257, 258, 501, and 503, the State Water Board promulgated provisions of Title 27, Division 2, of the CCR, and with the Water Quality Control Plan for Ocean Waters of California (California Ocean Plan). If the Permittee desires to dispose of solids or sludge by a different method, a request for Permit modification shall be submitted to the U.S. EPA and the Regional Water Board 180 days prior to the alternative disposal.

2. All the requirements in 40 CFR 503 are enforceable by U.S. EPA whether or not they are stated in an NPDES Permit or other permit issued to the Permittee. The Regional Water Board should be copied on relevant correspondence and reports forwarded to the U.S. EPA regarding sludge management practices.

3. Sludge that is disposed of in a municipal solid waste landfill or used as landfill daily cover shall meet the applicable requirements of 40 CFR Part 258. In the annual self-monitoring report, the Permittee shall include the amount of sludge disposed of, and the landfill(s) to which it was sent.

4. Sludge that is applied to land as soil amendment shall meet pollutant ceiling concentrations and pollutant concentrations, pathogen reduction and vector attraction reduction requirements, and annual and cumulative discharge limitations of 40 CFR Part 503.

5. Sludge that is disposed of through surface disposal, including but not limited to trench systems, area-fill systems, active waste piles, and active impoundments or lagoons shall meet the applicable requirements of 40 CFR Part 503. Sludge stored beyond two years may be considered disposal and regulated as a waste pile or surface impoundment under Title 27 Division 2 of the CCR.

6. The Permittee is responsible for ensuring compliance with these regulations whether the Permittee uses or disposes of the sludge itself or contracts with another party for further treatment, use, or disposal. The Permittee is responsible for informing subsequent preparers, appliers, and disposers of the requirements that they must meet under 40 CFR Parts 257, 258, and 503.

7. The Permittee shall take all reasonable steps to prevent and minimize any sludge use or disposal in violation of this Permit that has a likelihood of adversely affecting human health or the environment.

8. Solids and sludge treatment, storage, and disposal or reuse shall not create a nuisance, such as objectionable odors or flies, and shall not result in groundwater contamination.

9. The solids and sludge treatment and storage site shall have facilities adequate to divert surface water runoff from adjacent areas, to protect the boundaries of the site from erosion, and to prevent drainage from the treatment and storage site. Adequate protection is defined as protection from at least a 100-year storm and protection from the highest possible tidal stage that may occur.

10. The discharge of sewage sludge and solids shall not cause waste material to be in a position where it is, or can be, conveyed from the treatment and storage sites and deposited in the waters of the state.

11. The Permittee shall notify the Executive Officer at least 60 days prior to the initiation of any disposal project, with the exception of regular disposal of screenings at a permitted landfill.

G. REQUIREMENTS FOR AERATED OR OXIDATION POND SYSTEMS

1. For Aerated or Oxidation Pond Systems, the following additional requirements apply:

   a. The dissolved oxygen concentration in the treatment/holding ponds shall not be less than 1.0 mg/l at any time.

   b. A minimum freeboard, consistent with pond design but not less than two feet, shall be maintained at all times in any pond containing process and/or domestic wastewater, except with prior authorization by the Executive Officer.

   c. The pond shall be operated and maintained to prevent inundation or washout due to floods with a 100-year return frequency.

   d. The pond shall have sufficient capacity to accommodate wastewater flow, groundwater infiltration and inflow in the collection system, and seasonal precipitation during the rainy season.

   e. All new ponds shall be sited, designed, constructed, and operated to ensure that wastes will be a minimum of five feet (5 ft.) above the highest anticipated elevation of underlying ground water.

   f. All ponds shall have a foundation or base capable of providing support for the structures, and capable of withstanding hydraulic pressure gradients to prevent

failure due to settlement, compression, or uplift and all effects of ground motions resulting from at least the maximum probable earthquake, as certified by a registered civil engineer or certified engineering geologist.

H. NEW TENANTS AND OPERATIONAL REQUIREMENTS

Prospective tenants shall be limited to wine, beverage and food processing. Meat processing, businesses producing or utilizing hazardous wastes including high proof alcohol, and businesses not generating an organic waste stream such as vehicle maintenance and light or heavy industry are prohibited.

The Permittee shall require a written statement by the new tenant certifying that toxic or otherwise deleterious substances will not be discharged and that they will immediately notify the Permittee if the quality or quantity of discharge is anticipated to change. Additionally, the tenant must certify in writing that they have read and intend to implement the Facility-Wide Operational BMPs Manual established by the Permittee.

The Permittee shall ensure that adequate grease interceptor or removal equipment is installed prior to commencement of any processing activities involving high fat or oil content substances. Processing activities involving high fat or oil content substances shall not discharge grease to the wastewater treatment system in amounts that impair the performance of the wastewater treatment system.

The Permittee shall produce a "Facility-Wide Operational BMPs Manual" that outlines waste minimization procedures, pretreatment requirements and discharge prohibitions for their tenants. The document shall be received by the Executive Officer for review and comment within 90 days of the adoption of this Permit. Once approved by the Executive Officer, the Permittee shall require all tenants to adhere to the provisions of the document and shall insert this requirement into all lease agreements. The document shall be updated annually throughout the term of the Permit.

I. WATER RECLAMATION REQUIREMENTS

Domestic wastewater shall be disposed of in accordance with the following provisions:

1. The Permittee shall manage recycled water in accordance with Title 22, CCR, Division 4, Chapter 3 (Section 60301 et seq.). These rules, ordinances, or regulations shall be reviewed and approved by the Executive Officer and DHS.

2. The use of recycled water shall not create a condition of pollution or nuisance.

3. Recycled water shall not be applied to irrigation areas during periods when uncontrolled runoff may occur.

4. Recycled water shall be applied in such a manner so as not to exceed vegetative demand or field capacity.

5. Recycled water and airborne spray shall not be allowed to escape from the authorized recycled water use area(s). [Title 22, Section 60310(e)]

6. Direct or windblown spray, mist, or runoff from irrigation areas shall not enter dwellings, designated outdoor eating areas, or food handling facilities. [Title 22, Section 60310(e)(2)]

7. The California Health and Safety Code, Section 116815, requires that "all pipes installed above or below the ground, on or after June 1, 1993, that are designed to carry recycled water, shall be colored purple or distinctively wrapped with purple tape." Section 116815 also contains exemptions that apply to municipal facilities that have established a labeling or marking system for recycled water used on their premises and for water delivered for agricultural use. The Permittee shall prepare a report documenting either compliance with this requirement and/or containing a workplan to identify and replace any pipe in the recycled water distribution system installed after June 1, 1993 that is not in compliance with the this code. The workplan, if necessary, shall be submitted within 90 days of the adoption of this Permit. A report documenting full compliance with this requirement shall be submitted within 180 days of adoption of this Permit.

8. All reservoirs and ponds shall be adequately protected from erosion, washout, or flooding from a rainfall event having a predicted frequency of once in 100 years.

9. Recycled water shall not be irrigated within 50 feet of any domestic water supply well or domestic water supply surface intake, unless the technical requirements specified in Title 22, Section 60310(a) have been met and approved by DHS.

10. Recycled water shall not be impounded within 100 feet of a domestic water supply well unless the technical requirements specified in Title 22, Section 60310(b) have been met.

11. The use of recycled water shall not cause degradation of any water supply.

12. Areas irrigated with recycled water shall be managed to prevent ponding and conditions conducive to the proliferation of mosquitoes and other disease vectors, and to avoid creation of a public nuisance or health hazard. Irrigation water shall infiltrate completely within a 24-hour period.

13. All areas where recycled water is used that are accessible to the public shall be

posted with signs that are visible to the public, in a size no less than 4 inches high by 8 inches wide, that include the following wording: 'RECYCLED WATER – DO NOT DRINK'. [Title 22, Section 60310(g)] These warning signs shall be posted at least every 500 feet with a minimum of a sign at each corner and access road.

J. GENERAL PROVISIONS

1. The Regional Water Board's Executive Officer and the Director of the County Environmental Health Department or equivalent agency shall be notified immediately of any failure of the wastewater containment facilities. Such failure shall be promptly corrected in accordance with the requirements of this Permit.

2. Adequate measures shall be taken to assure that unauthorized persons are effectively excluded from contact with the wastewater disposal facility.

3. Duty to Comply

   The Permittee shall comply with all conditions of this Permit. Any instance of noncompliance with this Permit constitutes a violation of the CWA and the Porter-Cologne Water Quality Control Act and is grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or denial of a permit renewal application. [40 CFR 122.41(a)]

   The Permittee 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 Permit has not yet been modified to incorporate the requirement. [40 CFR 122.41(a)(1)]

4. Duty to Reapply

   This Permit expires on **November 5, 2008**. If the Permittee wishes to continue an activity regulated by this Permit after the expiration date of this Permit, the Permittee shall apply for and obtain a new permit. The application, including a Report of Waste Discharge in accordance with Title 23, CCR, shall be received by the Regional Water Board no later than 180 days before the expiration date. [40 CFR 122.41(b)].

   The Regional Administrator of the U.S. EPA or the Executive Officer may grant permission to submit an application at a later date prior to the Permit expiration date; and the Regional Administrator of the U.S. EPA or the Executive Officer may grant permission to submit the information required by paragraphs (g)(7), (9), and (10) of 40 CFR 122.21 after the Permit expiration date. [40 CFR 122.21(d)(2)]

5. Enforcement

The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the CWA is subject to a civil penalty not to exceed $25,000 per day of violation. Any person who negligently violates permit conditions implementing Sections 301, 302, 306, 307, or 308 of the Act is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment of not more than one year, or both. Higher penalties may be imposed for knowing violations and for repeat offenders. The Porter-Cologne Water Quality Control Act provides for civil and criminal penalties comparable to, and in some cases greater than, those provided under the CWA. [40 CFR 122.41 (a)(2)]

6. Duty to Mitigate

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

7. Proper Operation and Maintenance

The Permittee 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 Permittee to achieve compliance with this Permit. Proper operation and maintenance includes adequate laboratory quality control and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by the Permittee only when necessary to achieve compliance with the conditions of this Permit. [40 CFR 122.41(e)]

The Permittee shall comply with this provision by submitting to the Regional Water Board within one year of the effective date of this Permit an updated Operation and Maintenance (O&M) Manual that it has developed for the Facility. The Permittee shall update the O&M Manual, as necessary, to conform with changes in operation and maintenance of the Facility. The O&M Manual shall be readily available to operating personnel on-site. The O&M Manual shall include the following:

a. Description of the Facility table of organization showing the number of employees, duties and qualifications and plant attendance schedules (daily, weekends and holidays, part-time, etc). The description should include

documentation that the personnel are knowledgeable and qualified to operate the Facility so as to achieve the required level of treatment at all times.

b. Detailed description of safe and effective operation and maintenance of treatment processes, process control instrumentation and equipment.

c. Description of laboratory and quality assurance procedures.

d. Process and equipment inspection and maintenance schedules.

e. Description of preventive (fail-safe) and contingency (response and cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. These plans shall identify the possible sources (such as loading and storage areas, power outage, waste treatment unit failure, process equipment failure, tank and piping failure) of accidental discharges, untreated or partially treated waste bypass, and polluted drainage.

10. Permit Actions

a. This Permit may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

i. Violation of any terms or conditions of this Permit; or

ii. Obtaining this Permit by misrepresentation or failure to disclose fully all relevant facts; or

iii. A change in any condition that requires either a temporary or a permanent reduction or elimination of the authorized discharge; or

iv. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination.

b. If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the CWA for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this Permit, this Permit shall be modified or

revoked and reissued to conform to the toxic effluent standard or prohibition and the Permittee so notified. [40 CFR 122.44(b)]

c. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition. [40 CFR 122.41(f)]

11. Property Rights

This Permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. [40 CFR 122.41(g)]

12. Duty to Provide Information

The Permittee shall furnish the Regional Water Board, State Water Board, or U.S. EPA, within a reasonable time, any information that the Regional Water Board, State Water Board, or U.S. EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit or to determine compliance with this Permit. The Permittee shall also furnish to the Regional Water Board, upon request, copies of records required to be kept by this Permit. [40 CFR 122.41(h)]

The Permittee shall conduct analysis on any sample provided by U.S. EPA as part of the Discharge Monitoring Quality Assurance (DMQA) program. The results of any such analysis shall be submitted to U.S. EPA's DMQA manager.

13. Inspection and Entry

The Permittee shall allow the Regional Water Board, State Water Board, U.S. EPA, the Department of Health Services and/or other authorized representatives, upon the presentation of credentials and other documents as may be required by law, to:

a. Enter upon the Permittee’s premises where a regulated facility or activity is located or conducted, or where records are required to be kept under the conditions of this Permit;

b. Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of this Permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under

this Permit; and

d. Sample or monitor at reasonable times, for the purposes of assuring compliance to this Permit, or as otherwise authorized by the CWA, any substances or parameters at any locations. [40 CFR 122.41(i)]

14. Monitoring and Records

a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

b. The Permittee shall calibrate and perform maintenance procedures in accordance with manufacturer's specifications on all monitoring instruments and equipment to ensure accurate measurements. The Permittee 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 Permit, and records of all data used to complete the application for this Permit, for a period of at least three years from the date of the sample, measurement, report, or application. This period may be extended by request of the Regional Water Board, State Water Board, or U.S. EPA at any time. All monitoring instruments and devices used by the Permittee to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary, but at least annually to ensure their continued accuracy.

c. Records of monitoring information shall include:

i. The date, exact place, and time of sampling or measurements;

ii. The individual(s) who performed the sampling or measurements;

iii. The date(s) analyses were performed;

iv. The individual(s) who performed the analyses;

v. The analytical techniques or methods used;

vi. The results of such analyses;

vii. The method detection limit (MDL); and

viii. The practical quantitation level (PQL) or the limit of quantitation (LOQ), where applicable.

d. Unless otherwise noted, all sampling and sample preservation shall be in accordance with the current edition of *Standard Methods for the Examination*

of Water and Wastewater (American Public Health Association). All analyses shall be conducted according to test procedures under 40 CFR Part 136, unless other test procedures have been specified in this Permit or approved by the Executive Officer. Unless otherwise specified, all metals shall be reported as total recoverable metals. Toxicity bioassays shall be performed in accordance with the provisions of this permit.

15. Signatory Requirements

a. All permit applications submitted to the Regional Water Board, State Water Board, and/or U.S. EPA shall be signed by a general partner or the proprietor, the chief executive officer of the agency or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency, or a responsible corporate officer. For purposes of this provision, 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 employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

b. Reports required by this Permit, other information requested by the Regional Water Board, State Water Board, or U.S. EPA, and permit applications submitted for Group II storm water discharges under 40 CFR 122.26(b)(3) may be signed by a duly authorized representative provided:

i. The authorization is made in writing by a person described in paragraph (a) 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 well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company; and

iii. The written authorization is submitted to the Regional Water Board prior to, or together with, any reports, information, or applications signed by the authorized representative. [40 CFR 122.22(b)(c)]

c. Any person signing a document under paragraph (a) or (b) of this provision 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)]

16. Reporting Requirements

a. Planned changes: The Permittee shall give notice to the Regional Water Board as soon as possible of any planned physical alteration or additions to the permitted facility. Notice is required under this provision only when:

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

ii. 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 Permit, nor the notification requirements under paragraphs (f) and (g) of this provision.

b. Anticipated noncompliance: The Permittee shall give advance notice to the Regional Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

c. Transfers: This permit is not transferable.

d. Monitoring reports: Monitoring results shall be reported at the intervals specified in the self-monitoring program. The Permittee shall submit an annual report to the Regional Water Board such that it is received no later than February 28 following the annual reporting period. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the Permittee shall discuss the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with the Permit. If the Permittee monitors any pollutant more frequently than required by this Permit, using test procedures approved under 40 CFR Part 136 or as specified in this

Permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

e. Compliance schedules: Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Permit shall be submitted such that they are received by the Regional Water Board via fax, e-mail, or postal service no later than 14 days following each schedule date.

f. Noncompliance reporting: The Permittee shall report any noncompliance at the time monitoring reports are submitted. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times and, if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate and prevent recurrence of the noncompliance.

In addition, the following events shall be reported orally as soon as possible, but no later than 24 hours from the time the Permittee becomes aware of the circumstances, and the written report shall be submitted such that an original signed written report is received by the Regional Water Board no later than 14 days after the event:

i. Any unanticipated bypass that violates any prohibition or exceeds any effluent limitation in this Permit;

ii. Any upset that exceeds any effluent limitation in this Permit;

iii. Any noncompliance that may endanger health or the environment except as provided elsewhere in this permit.

The Executive Officer may waive the above-required written report.

g. The following events shall be reported to the Executive Officer by telephone within 24 hours, and the written report shall follow within 14 days after the event:

i. Failure of chlorination equipment.

ii. Effluent total coliform bacteria in exceedance of 240 MPN/100 ml.

The Permittee shall mitigate for these events by diverting all inadequately treated and disinfected wastewater until the Permittee documents that the problem has been resolved.

h. Other information: Where the Permittee 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 Regional Water Board, the Permittee shall promptly submit such facts or information. [40 CFR 122.41(1)]

17. Bypass

a. Definitions:

i. Bypass [as defined in 40 CFR 122.41(m)] is the intentional diversion of waste streams from any portion of a treatment facility.

ii. 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 which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Bypass not exceeding limitations. The Permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance or in accordance with an operating plan approved by the Executive Officer to assure efficient operation. These bypasses are not subject to the requirements of parts c and d of this provision.

c. Notice

Anticipated bypass. If the Permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.

Unanticipated bypass. The Permittee shall submit notice of an unanticipated bypass as required in General Provision 12(f)(i) of this permit.

d. Prohibition of bypass

i. Bypass is prohibited, and the Regional Water Board may take enforcement action against a Permittee for bypass, unless:

a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

b. 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 backup 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; and

c. The Permittee submitted notices as required under part c of this provision.

ii. The Executive Officer may approve an anticipated bypass, after considering its adverse effects, if the Executive Officer determines that it will meet the three conditions listed in part (d)(i) of this provision.

e. Reopener. This provision may be modified in accordance with the requirements set forth at 40 CFR Parts 122.44 and 122.62 to include appropriate conditions based on newly available information or alterations to the permitted facility.

18. Upset

a. Definition. Upset [as defined in 40 CFR 122.41(n)] is 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 Permittee. 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.

b. 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 part c of this provision 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.

c. Conditions necessary for a demonstration of upset. A Permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

i. An upset occurred and that the Permittee can identify the cause(s) of the upset; and

ii. The permitted facility was at the time being properly operated.

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

e. Reopener. This provision may be modified in accordance with the requirements set forth at 40 CFR Parts 122.44 and 122.62 to include appropriate conditions based on newly available information or alterations to the permitted facility.

19. Availability

A copy of this Permit shall be maintained at the discharge facility and be available at all times to operating personnel.

20. Change in Discharge

a. In the event of a material change in the character, location, or volume of a discharge, (including any point or non-point discharge to land or groundwater) the Permittee shall file with this Regional Water Board a new report of waste discharge at least 180 days before making any such change. [CWC Section 13376]. A material change includes, but is not limited to, the following:

i. Any new introduction of pollutants into the Facility from an indirect discharger that would be subject to Section 301or 306 of the CWA if it were directly discharging those pollutants;

ii. Significant change in disposal method, e.g., change from a land disposal to a direct discharge to water, or change in the method of treatment that would significantly alter the characteristics of the waste.

iii. Significant change in the disposal area, e.g., moving the discharge to another drainage area, to a different water body, or to a disposal area significantly removed from the original area, potentially causing different water quality or nuisance problems.

iv. Increase in area or depth to be used for solid waste disposal beyond that specified in the Waste Discharge Requirements. [CCR Title 23 Section 2210]

21. Severability

Provisions of this Permit are severable. If any provision of this Permit is found invalid, the remainder of these requirements shall not be affected.

22. Monitoring

The Regional Water Board or State Water Board may require the Permittee to establish and maintain records, make reports, install, use, and maintain

monitoring equipment or methods (including, where appropriate, biological monitoring methods), sample effluent as prescribed, and provide other information as may be reasonably required. [CWC Sections 13267 and 13383].

The Permittee shall, pursuant to CWC Sections 13267 and 13383, comply with the Contingency Planning and Notification Requirements Order No. 74-151 and the Monitoring and Reporting Program No. R1-2003-0059 and any modifications to these documents as specified by the Executive Officer. Such documents are attached to this Permit and incorporated herein. The Permittee shall file with the Regional Water Board technical reports on self-monitoring work performed according to the detailed specifications contained in any monitoring and reporting program as directed by the Regional Water Board.

Chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. In the event that analyses for certain constituents by a certified laboratory is infeasible, analyses by a noncertified laboratory may be approved by the Executive Officer. Conditions that must be met for Executive Officer approval include: a quality assurance/quality control program conforming to U.S. EPA or State Department of Health Services guidelines is instituted by the laboratory, and a manual containing the steps followed in this program is kept in the laboratory and made available for review by staff of the Regional Water Board.

All Discharge Monitoring Reports shall be sent to:

California Regional Water Quality Control Board
North Coast Region
5550 Skylane Boulevard, Suite A
Santa Rosa, CA 95403

23. Acute Toxicity Control Provision

Compliance with the Basin Plan narrative toxicity objective shall be achieved in accordance with the following:

a. Test Species and Methods

i. The Permittee shall conduct 96-hour static renewal or 96-hour static non-renewal tests with an invertebrate, the water flea, *Ceriodaphnia dubia*, and a vertebrate, the rainbow trout, *Orncorhychus mykiss*, for the first two suites of tests. After this screening period, monitoring shall be conducted using the most sensitive species. At least once every five years, the Permittee shall re-screen once with the two species listed above and

continue to monitor monthly with the most sensitive species.

ii. The presence of acute toxicity shall be estimated as specified in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (U.S. EPA Report No. EPA 600/4-90-027F, 4th edition or subsequent editions), or other methods approved by the Executive Officer.

b. Toxicity Limits

i. Acute toxicity is defined as the effluent concentration that would cause death in 50 percent of the test organisms (LC50). Where the LC50 is calculated, results shall be reported in TUa, where TUa = 100/LC50 (in percent effluent).

ii. Acute toxicity is significantly reduced survival at 100 percent effluent compared to a control, using a t-test. Where 100 percent effluent is used, results shall be reported as percent survival.

c. If the result of any single acute toxicity test does not comply with the acute toxicity effluent limitation, the Permittee shall take two more samples, one within 14 days, and one within 21 days of receiving the sample results. If two of the three samples do not comply with the acute toxicity limitation, the Permittee shall initiate a Toxicity Reduction Evaluation (TRE). If the two additional samples are in compliance with the acute toxicity requirement, then a TRE will not be required. If the discharge has ceased before the additional samples could be collected, the Permittee shall contact the Executive Officer within 21 days with a plan to demonstrate compliance with the acute toxicity effluent limitation.

24. Chronic Toxicity Control Provision

a. In addition to compliance with the numeric chronic toxicity effluent limitation, prevention of chronic toxicity in the discharge shall be demonstrated according to the following tiered requirements based on results from representative samples of the treated effluent meeting test acceptability criteria:

i. Routine monitoring;

ii. Accelerate monitoring after exceeding a three sample median value of 1.0 TUc or a single sample maximum of 2.0 TUc;

iii. Return to routing monitoring if accelerated monitoring does not exceed either “trigger” in “ii”;

iv. Initiate approved TRE workplan and continue accelerated monitoring if monitoring confirms consistent toxicity above either "trigger" in "ii";

v. Return to routine monitoring after appropriate elements of TRE workplan are implemented and toxicity drops below "trigger" levels in "ii", or as directed by the Executive Officer.

b. Test Species and Methods

i. The Permittee shall conduct short-term tests with the water flea, *Ceriodaphnia dubia* (survival and reproduction test), the fathead minnow, *Pimephales promelas* (larval survival and growth test), and the green alga, *Selanastrum capricornutum* (growth test) for the first two suites of tests. After this screening period, monitoring shall be conducted using the most sensitive species. At least once every five years, the Permittee shall re-screen once with the three species listed above and continue to monitor with the most sensitive species.

ii. The presence of chronic toxicity shall be estimated as specified in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms* (U.S. EPA Report No. EPA-600-4-91-002, 3rd or subsequent editions).

c. Toxicity Limits

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

ii. Results shall be reported in TUc, where TUc = 100/NOEC or 100/ICp or ECp (in percent effluent).

d. Quality Assurance

i. A series of at least five dilutions and a control will be tested. The series shall consist of the following dilution series: 12.5, 25, 50, 75, and 100 percent effluent.

ii. If organisms are not cultured in-house, concurrent testing with a reference toxicant shall be conducted. Where organisms are cultured in-house, monthly reference toxicant testing is sufficient. Reference toxicant tests also shall be conducted using the same test conditions as the effluent toxicity tests (e.g., same test duration, etc).

iii. If either the reference toxicant test or effluent test does not meet all test acceptability criteria (TAC) as specified in the manual, then the Permittee

must re-sample and re-test within 14 days or as soon as possible.

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

25. Toxicity Reduction Evaluation (TRE)

a. The Permittee shall prepare and submit to the Regional Water Board Executive Officer an initial investigation TRE workplan within 180 days of the effective date of this Permit. This plan shall be reviewed and updated as necessary in order to remain current and applicable to the discharge and discharge facilities. The workplan shall describe the steps the Permittee intends to follow if toxicity is detected, and should include, at least the following items:

i. A description of the investigation and evaluation techniques that would be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency.

ii. A description of the Facility's methods of maximizing in-house treatment efficiency and good housekeeping practices.

iii. If a toxicity identification evaluation (TIE) is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor).

b. The TRE shall be conducted in accordance with the following:

i. The TRE shall be initiated within 30 days of the date of completion of the accelerated monitoring test observed to exceed either the acute or chronic toxicity parameter.

ii. The TRE shall be conducted in accordance with the Permittee's workplan.

iii. The TRE shall be in accordance with current technical guidance and reference material including, at a minimum, the U.S. EPA manual EPA/833B-99/002. The TRE shall be conducted as a tiered evaluation process, as summarized below:

a. Tier 1 consists of basic data collection (routine and accelerated monitoring).

b. Tier 2 consists of the evaluation of treatment plant optimization including operational practices, and in-plant process chemicals.

c. Tier 3 consists of a toxicity identification evaluation (TIE).

d. Tier 4 consists of the evaluation of options for additional treatment processes.

e. Tier 5 consists of the evaluation of options for modifications of in-plant treatment processes.

f. Tier 6 consists of the implementation of selected toxicity control measures, and follow-up monitoring and confirmation of implementation success.

iv. The TRE may end at any stage if, through monitoring results, it is determined that there is no longer consistent toxicity.

v. The Permittee may initiate a TIE as part of the TRE process to identify the cause(s) of toxicity. As guidance, the Permittee shall use the EPA acute and chronic manuals, EPA/600/6-91/005F(Phase I), EPA/600/R-92/080(Phase II), and EPA-600/R-92/081 (Phase III).

vi. As toxic substances are identified or characterized, the Permittee shall continue the TRE by determining the source(s) and evaluating alternative strategies for reducing or eliminating the substances from the discharge. All reasonable steps shall be taken to reduce toxicity to levels consistent with chronic toxicity parameters.

vii. Many recommended TRE elements accompany required efforts of source control, pollution prevention, and storm water control programs. TRE efforts should be coordinated with such efforts. To prevent duplication of efforts, evidence of complying with requirements of recommendations of such programs may be acceptable to comply with requirements of the TRE.

viii. The Regional Water Board recognizes that chronic toxicity may be episodic and identification of a reduction of sources of chronic toxicity may not be successful in all cases. Consideration of enforcement action by the Regional Water Board will be based in part on the Permittee's actions and efforts to identify and control or reduce sources of consistent toxicity.

26. Accelerated Testing for Toxicity

a. If the initial investigation indicates the source of toxicity, then only one additional test is necessary. If chronic toxicity is detected in this test, then this Section shall apply.

b. If chronic toxicity is detected, then the Permittee shall conduct two more tests,

one test conducted approximately every two weeks, over a four-week period. Testing shall commence within two weeks of receipt of the sample results of the exceedance of the toxicity monitoring trigger.

c. The Permittee may return to routine monitoring after appropriate elements of TRE workplan are implemented and toxicity drops below "trigger" levels in PROVISION 24. a.(ii), or as directed by the Executive Officer.

27. Reporting

a. Test results for chronic tests also shall be reported according to the chronic manual chapter on Report Preparation and the Monitoring and Reporting Program and shall be attached to the self-monitoring report.

b. The Permittee shall notify the Regional Water Board in writing 15 days after the receipt of the results of a monitoring limit or trigger. The notification will describe actions the Permittee has taken or will take to investigate and correct the cause(s) of toxicity. It may also include a status report on any actions required by the permit, with a schedule for actions not yet completed. If no actions have been taken, the reasons shall be given.

28. Pollutant Minimization Program

The Permittee shall, as required by the Executive Officer, conduct a Pollutant Minimization Program in accordance with the SIP when there is evidence that the priority pollutant is present in the effluent above an effluent limitation, when a sample result is reported as detected and not quantified and the effluent limitation is less than the reported minimum level, or when a sample result is reported as not detected and the effluent limitation is less than the method detection limit.

29. During storm events while the Facility is not discharging to the benches, the storm water runoff from Bench Nos. 1 through 7 may be discharged to Barlow Creek if the following criteria are met: 1) the first one inch of storm water runoff, measured by a nearby rain gauge, is captured and returned to Lake Davis; 2) prior to discharge of storm water runoff to Barlow Creek, a sample is collected from each bench for analysis as described in Monitoring and Reporting Program No. R1-2003-0059; and an operator of the Facility manually verifies that each bench has been prepared to capture all tailwater before again initiating discharge to the bench.

30. During storm events while the Facility is not discharging to Bench No. 1, the storm water runoff from Bench No. 1 may be discharged to Barlow Creek if the following criteria are met: 1) the first one inch of storm water runoff, measured by a nearby rain gauge, is captured and returned to the wastewater storage pond; 2) prior to discharge of storm water runoff to Barlow Creek, a sample is collected

for analysis as described in Monitoring and Reporting Program No. R1-2003-0059; and an operator of the Facility manually verifies that Bench No. 1 has been prepared to capture all tailwater before again initiating discharge to the bench.

31. Reopener

The Regional Water Board may modify, or revoke and reissue, this Permit if present or future investigations demonstrate that the Permittee governed by this Permit are causing or significantly contributing to, adverse impacts on water quality and/or beneficial uses of receiving waters.

In the event that the Regional Water Board's interpretation of the narrative toxicity objective is modified or invalidated by a State Water Board Order, a court decision, or state or federal statute or regulation, the effluent limitations for toxic pollutants contained in this Permit may be revised to be consistent with the order, decision, statute or regulation.

In addition, the Regional Water Board may consider revising this Permit to make it consistent with the SIP and any State Water Board decisions arising from various petitions for rehearing, and litigation concerning SIP, 303(d) list, and TMDL program.

Certification

I, Catherine E. Kuhlman, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, North Coast Region, on November 5, 2003.

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Catherine E. Kuhlman
Executive Officer