

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2002-0132

NPDES NO. CA 0080357

WASTE DISCHARGE REQUIREMENTS
FOR
SIERRA PACIFIC INDUSTRIES
QUINCY DIVISION
PLUMAS COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Regional Board) finds that:

1. Sierra Pacific Industries, Quincy Division, (hereafter Discharger) submitted a Report of Waste Discharge, dated 29 May 2001, and applied to renew their permit to discharge waste under the National Pollutant Discharge Elimination System (NPDES) from their sawmill and cogeneration power plant. The Discharger is currently regulated under Waste Discharge Requirements Order No. 96-280 (NPDES NO. CA0080357).
2. Sierra Pacific Industries operates a sawmill and wood-burning cogeneration facility in East Quincy in Section 18, T24N, R10E, MDB&M as shown on Attachment A, which is incorporated herein and made part of this Order by reference. The sawmill produces approximately 210 million board feet of lumber per year. The cogeneration plant currently produces a gross 27-megawatts (MW) of electric power, and a net 22-MW, which are sold on the market.
3. The sawmill and power plant are bordered by Mill Creek to the north and east, Lee Road to the south, and Bell Lane to the west as shown on Attachment B, which is incorporated herein and made part of this Order by reference. The facility is located on eight adjoining parcels of land totaling approximately 100 acres (116-370-021, 117-350-003, 117-350-004, 117-350-020, 117-350-021, 117-350-033, 117-350-035, and 117-350-036). Approximately 75 percent of the facility is paved. Site grading and the storm drainage system direct all sawmill and power plant storm water runoff to the northwest corner of the facility where log deck recycle ponds are located. Storm water runoff is managed by a pond system and discharges to Mill Creek, which is a tributary of Spanish Creek, which is a tributary of the East Branch of the North Fork of the Feather River (Discharge 001). Presently, Discharge 001 is the only location where storm water leaves the site.
4. The facility is in the Quincy Hydrologic Subarea (No. 518.52), as depicted on interagency hydrologic maps prepared by the Department of Water Resources (DWR) in

August 1986. The mean annual rainfall in the area is approximately 39.3 inches, based on information maintained by the United States Forest Service.

5. Shallow groundwater is approximately 11 to 30 feet below the ground surface (ft bgs). Boring logs indicate that the subsurface consists of clay and gravel with intermittent lenses of shale rock beginning at approximately 40 ft bgs. Six shallow groundwater monitoring wells were installed at the facility in 1989 (as shown on Attachment B). No historical analytical data is available from the Discharger or in the case and monitoring files. Sampling performed in May 2002 suggests that the shallow groundwater in the northeast portion of the facility may be impacted by the retention pond and/or the ash storage area. Two on-site groundwater production wells provide water to the plant for use in the log deck sprinkling system, cooling tower, and boiler, as well as for domestic use.
6. Six production wells operated by the East Quincy Services District surround the facility. The wells range from 115 to 775 ft in depth. The wells are sampled for general parameters, minerals, volatile organic compounds, metals, and fuel oxygenates. Sampling data submitted by the East Quincy Services District to the California Department of Health Services Division of Drinking Water indicate the quality of water from these supply wells meets drinking water standards.
7. Approximately 65 million board feet of logs are stacked in paved decks, which cover 27 acres of the facility. During the dry summer months, the logs are sprinkled with water to prevent the development of blue stain and end checking. Excess log deck runoff drains to an unlined log deck pond system. Log deck runoff contains bark, sawdust, tannins and lignins, dissolved organics, settleable, and suspended solids.
8. The log deck pond system, which provides treatment through settling, consists of a bark separator, four log deck recycle ponds, and one five-acre retention pond. Pumps transfer water between the recycling ponds and the retention pond. The recycle ponds gravity drain and are valved to allow flexibility in operations, as shown in Attachment C which is incorporated herein and made part of this Order by reference.
9. Discharge from the facility generally does not occur during the summer months (except during rare, extreme thunderstorms), and plant process water and make-up water are added to the sprinkling system. Wet season operation occurs after log deck sprinkling is terminated, usually late October or early November. During the wet season runoff is discharged to Mill Creek. Historically, the initial runoff was contained in the recycle ponds and retention pond. After an initial flushing period, which could occur over a series of storms, runoff from the log decks was discharged through a gravel diffuser before entering Mill Creek (Discharge 001). The quality of the settling pond effluent discharged in 2000 and 2001 is summarized in the table below:

<u>Constituent</u>	<u>Result</u>
pH	6.4 to 7.3
Electrical Conductivity	130 to 225 µmhos/cm
Turbidity	8 to 40 NTU
Chemical Oxygen Demand	7.4 to 97 mg/L
Settleable Solids	<0.1 to 0.5 mL/L
Suspended Solids	23 to 95.6 mg/L
Tannins and Lignins	0.9 to 13.6 mg/L

10. To improve the quality of the discharge, in late December 2001 the Discharger started using the retention pond for settling. The Discharger has the option to route runoff from the recycle ponds to the retention pond for additional settling. Three aerators in the retention pond are periodically used to add dissolved oxygen and remove chemical oxygen demand. A floating pump skims water from within the first 2 feet of the retention pond surface. Pumped water continues to be discharged to Mill Creek at Discharge 001 through the gravel diffuser. Under this new settling process, two samples collected of water discharged in January 2002 contained the following:

<u>Compounds</u>	<u>January 2002 Results</u>
pH	7.16 – 7.6
Electrical conductivity (µmhos/cm)	278 – 280
Turbidity (mg/L)	3.0 – 24.5
Chemical oxygen demand (mg/L)	48 – 96
Settleable solids (mL/L)	<0.1
Suspended solids (mg/L)	12 – 12.6
Tannins and lignins (mg/L)	3.9 – 6.62
Acute toxicity - survival	100%

Prior to the first discharge of the wet season, the Discharger will sample the retention pond to determine if effluent limitations are met. Should contents not be suitable for discharge, the Discharger can retain the contents in the retention pond and manage storm water as was done during past rainy seasons (i.e. retain the first flush in the retention pond and route storm water from subsequent storms through the recycle ponds for discharge at Discharge 001).

11. The power plant operates 24 hours per day. Water use at the power plant is summarized below:
- **Reverse osmosis.** The primary well supplies approximately 110 gpm of water to the power plant. Prior to use in the boiler, feed water is treated using reverse osmosis treatment. Approximately 30 gpm of concentrate (brine) from the reverse osmosis system is discharged to a collection sump that drains to the retention pond.

- **Demineralizer.** The remaining 80 gpm of treated water is polished with cation/anion exchange resins. Regeneration of these resins is performed on-site approximately every 4 to 5 days. Approximately 4,500 gallons of spent reject water are produced during each regeneration, neutralized with acids or bases, and discharged to the same collection sump that receives reverse osmosis concentrate.
- **Boiler.** Water that has been treated and polished is stored in a storage tank and then metered into the de-aerator (DA) tank prior to use in the boiler. The boiler generates steam for the 20 MW and 7.5 MW turbine generators. Steam from the 7.5 MW turbine generator is subsequently used in the dry kilns. Condensed steam is recycled back to the DA tank for reuse in the boiler. A low, metered volume of boiler blowdown water, which varies daily, is discharged to the collection sump.
- **Cooling Tower.** Approximately 25 to 80 gpm of water from the primary well, secondary well, and cooling system air compressors are supplied to the cooling tower. Approximately 17 gpm of cooling tower blowdown water are discharged to the collection sump and the remainder is evaporated.

Discharge to the collection sump, which consists of reverse osmosis concentrate, demineralizer regeneration wastewater, boiler blowdown water, and cooling tower blowdown water was sampled in September 2001 by the Regional Board and contained the following:

<u>Compounds</u>	<u>Result</u>
Sodium	18 mg/L
Sulfate	13.2 mg/L
Chloride	11 mg/L
Specific Conductance	346 µmhos/cm
Total Dissolved Solids	221 mg/L

12. Between 1,000 to 3,500 tons of ash are generated each month, averaging 22,000 tons per year. Ash is stored on-site temporarily in an unpaved area at the northern central portion of the site. It is removed regularly and used at a local ranches and farms as soil amendment. The following compounds were measured in ash sampled in July 2001: (using waste extraction tests with deionized water as the extractant):

<u>Compound</u>	<u>Concentration Range (ug/L)</u>
Arsenic	Not Detected
Cadmium	Not Detected
Hexavalent Chromium	42
Lead	97
Manganese	11,000
Nickel	40

13. A 20,000-gallon above ground diesel tank, 10,000-gallon aboveground diesel tank, 10,000-gallon above ground gasoline tank, and several 55-gallon lubricating oil tanks are located at the fuel storage area. Other fuels, oils, and chemicals are stored at various facility locations. All the tanks at the facility are protected by roof coverings and secondary containment. A Spill Prevention Control and Countermeasure Plan, which was stamped by a registered civil engineer, was prepared in June 2002. Material Safety Data Sheets are available for all chemicals stored at the facility.
14. Domestic wastes generated from the truck shop and buildings within the central portion of the facility are discharged to six septic tank/leachfield systems at the facility as shown on Attachment B. The Discharger states that the septic tanks are pumped every 3 to 5 years. Domestic wastes generated from buildings along Lee Road, with the exception of the truck shop, are directed to the East Quincy Services District wastewater treatment plant. This includes wastes from the wash rack, the forklift shop, and an office on the south side of the facility.
15. The Regional Board adopted a *Water Quality Control Plan, Fourth Edition, for the Sacramento and San Joaquin River Basins* (hereafter Basin Plan). The Basin Plan designates beneficial uses, establishes water quality objectives, and describes an implementation program and policies to achieve water quality objectives for all waters of the Basin. This includes plans and policies adopted by the SWRCB and incorporated by reference, such as Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters in California. These requirements implement the Basin Plan.
16. USEPA adopted the *National Toxics Rule* (NTR) on 5 February 1993 and the *California Toxics Rule* (CTR) on 18 May 2000. These Rules contain water quality criteria applicable to this discharge. The State Water Resources Control Board (SWRCB) adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (known as the State Implementation Policy), which contains guidance on implementation of the NTR and the CTR.
17. The beneficial uses of Mill Creek and Spanish Creek are not individually identified in the Basin Plan; however, the Basin Plan states, "The beneficial uses of any specially identified water body generally apply to its tributary streams." The Basin Plan does identify present and potential beneficial uses of the North Fork of the Feather River. The beneficial uses of the North Fork of the Feather River are municipal and domestic supply (MUN), hydropower generation (PWR); water contact and non-contact recreation (REC-1 and REC-2); fresh water habitat (COLD); cold water spawning (SPWN); wildlife habitat (WILD); aesthetic enjoyment; and preservation and enhancement of fish, wildlife, and other aquatic resources.
18. The beneficial uses of groundwater are municipal, industrial, and agricultural supply.

19. The U.S. Environmental Protection Agency (USEPA) and the Regional Board have classified this discharge as a minor discharge.
20. Federal regulations contained in Title 40 Code of Federal Regulations (CFR) Part 122.4(d) require effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause or contribute to an in-stream excursion above a narrative or numerical water quality standard. Based on current facility operations, information submitted as part of the application and as directed by monitoring and reporting programs, the Regional Board finds that the discharge does have a reasonable potential to cause or contribute to an in-stream excursion above a water quality objective for settleable solids, suspended solids, specific conductance and pH. Effluent limitations for these constituents are included in this Order.
21. On 8 December 2000, the Discharger was issued a letter under the authority of California Water Code Section 13267 requesting effluent and receiving water monitoring to perform a reasonable potential analysis. Federal regulations contained in 40 CFR 122.4 (d) require effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause or contribute to an in-stream excursion above a narrative or numerical water quality standard. The Discharger has sampled the effluent and receiving water once, on 17 December 2001, to determine if the priority pollutants established in the CTR and NTR were detected. Analytical results were submitted for volatile substances, semi-volatile substances, pesticides, metals, asbestos, and dioxin.

Asbestos, dioxin, and seventy priority pollutant organic substances were not detected in the effluent and receiving water samples at concentrations that will cause or contribute to a violation of any applicable water quality objective contained in the Basin Plan. Water quality criteria have been established for the remaining forty volatile substances, semi-volatile substances, and pesticides at concentrations less than current laboratory detection limits. Based on the Discharger's operation, it is reasonable to assume that these remaining constituents will also not cause or contribute to violations of water quality criteria.

Trace levels of antimony, arsenic, total chromium, copper, lead, mercury, nickel, and zinc were also detected at concentrations comparable to receiving water concentrations. Cyanide was found one time at 6 ug/L. Based on initial sample results and facility operations, this Order specifies additional monitoring to determine if water quality-based effluent limits for pollutants, including cyanide, are necessary. This Order contains provisions that:

- a. require the Discharger to provide additional information as to whether the levels of pollutants in the discharge cause or contribute to an in-stream excursion above a water quality standard;
 - b. if the discharge has a reasonable potential to cause or contributes to an in-stream excursion above a water quality standard, require the Discharger to submit information to calculate effluent limitations for those constituents; and
 - c. allow the Regional Board to reopen this Order and include effluent limitation for those constituents.
22. Federal Regulations for storm water discharges were promulgated by USEPA on 16 November 1990 (40 CFR Parts 122,123, and 124). The regulations require specific categories of facilities, which discharge storm water associated with industrial activity (storm water), to obtain NPDES permits and to implement Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology to reduce or eliminate industrial storm water pollution.
23. The SWRCB adopted Order No. 97-03-DWQ (General Permit No. CAS000001), on 17 April 1997, specifying waste discharge requirements for discharge of storm water associated with industrial activities, excluding construction activities, that requires submittal of a Notice of Intent, preparation of a Storm Water Pollution Prevention Plan, site map, and monitoring program by industries to be covered under the permit. The General Permit, Table D, requires sawmills and steam electric generating facilities to sample for additional constituents. This individual permit and the provisions and monitoring it contains concerning storm water relieve the Discharger from seeking coverage under the General Permit.
24. Resolution No. 68-16 requires the Regional Board, in regulating the discharge of waste, to maintain high quality waters of the state unless it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in the Regional Board's policies (e.g., quality that exceeds water quality objectives).
25. The Regional Board has considered Resolution No. 68-16 and finds that the current discharge may be inconsistent with this policy, and could cause an increase in groundwater constituents above water quality objectives, specifically total dissolved solids and metals. Additionally, it has not been demonstrated that degradation of groundwater by this discharge is consistent with maximum benefit to the people of the State. Therefore, groundwater limitations are necessary for the discharge to be in accordance with the Basin Plan requirements. To assure that the discharge as permitted

herein is consistent with Resolution No. 68-16, the Discharger is required to propose and fully implement Best Practicable Treatment or Control (BPTC) measures so that the discharge does not create a condition of pollution or nuisance and that the highest water quality will be maintained.

26. Ash characterization shows that leachate from the unpaved ash storage area has a reasonable potential to impact the underlying groundwater. Shallow groundwater conditions and limited groundwater data suggest that leachate may migrate to groundwater. Since the four on-site groundwater monitoring wells have only been sampled once and no background or upgradient data is available, potential impacts on groundwater and the appropriate level of degradation that complies with Resolution No. 68-16 have not been fully evaluated. The Discharger's current effort does not constitute BPTC as intended in Resolution No. 68-16. This Order establishes a schedule for tasks to evaluate BPTC for each storage and disposal component of the facility and to characterize groundwater for selected constituents. Completion of these tasks, and implementation of the approved strategies will ensure that BPTC and the highest water quality consistent with the maximum benefit to the people of the State will be achieved.
27. This Order establishes background groundwater limitations for the facility, and contains tasks for evaluating groundwater conditions and assuring that BPTCs are implemented. This Order also includes a provision to reopen the Order should it be determined that groundwater degradation is consistent with the maximum benefit to the people of the state. Accordingly, the discharge is consistent with Resolution No. 68-16. Based on the results of the scheduled tasks, the Regional Board may reopen this Order to reconsider groundwater limitations and other requirements to comply with Resolution No. 68-16.
28. The Basin Plan identifies numerical water quality objectives for waters designated as municipal supply. These are the maximum contaminant levels (MCLs) specified in the following provisions of Title 22, California Code of Regulations: Tables 64431-A (Inorganic Chemicals) and 64431-B (Fluoride) of Section 64431, Table 64444-A (Organic Chemicals) of Section 64444, and Table 64449-A (Secondary Maximum Contaminant Levels-Consumer Acceptance Limits) of Section 64449. The Basin Plan's incorporation of these provisions by reference is prospective, and includes future changes to the incorporated provisions as the changes take effect. The Basin Plan recognizes that the Regional Board may apply limits more stringent than MCLs to ensure that waters do not contain chemical constituents in concentrations that adversely affect beneficial uses and do not contain waste constituents in concentrations statistically greater than background water quality.
29. The Basin Plan contains narrative water quality objectives for chemical constituents, taste and odor, and toxicity. The toxicity objective requires that groundwater be maintained

free of toxic substances in concentrations that produce detrimental physiological responses in plants or animals. The chemical constituent objective requires that groundwater shall not contain chemical constituents in concentrations that adversely affect beneficial uses.

30. The DWR has established standards for the construction and destruction of groundwater wells (hereafter DWR Well Standards). These standards are described in two DWR publications: California Well Standards Bulletin 74-90 (June 1991) and Water Well Standards: State of California Bulletin 94-81 (December 1981).
31. The action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21100, et seq.), in accordance with Section 13389 of the California Water Code.
32. Effluent limitations, and toxic and pretreatment effluent standards established pursuant to Sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 304 (Information and Guidelines), and 307 (Toxic and Pretreatment Effluent Standards) of the Clean Water Act (CWA) and amendments thereto are applicable to the discharge.
33. Title 40 CFR Part 423 specifies effluent limitations for the Steam Electric Power Generating Point Source Category. Since fossil fuel is used secondarily, these limitations are not applicable to the discharge. However, since the Discharger does spray water on their logs, effluent limitations established in Timber Products Processing Point Source Category, Wet Storage Subcategory (40 CFR Part 429, Subpart I) are applicable to the discharge.
34. The Regional Board has considered the information in the attached Information Sheet in developing the findings in this Order. The attached Information Sheet is part of this Order.
35. The Regional Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge and has provided them an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
36. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge.
37. This Order shall serve as an NPDES permit pursuant to Section 402 of the CWA, and amendments thereto, and shall take effect 10 days from the date of hearing, provided USEPA has no objections.

IT IS HEREBY ORDERED that Order No. 96-280 is rescinded and Sierra Pacific Industries, Quincy Division, its agents, successors and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Discharge Prohibitions

1. Discharge of wastewater, including storm water, at locations or in a manner different from that described in Finding No. 3, 9, 10, 11, and 14 is prohibited.
2. The by-pass or overflow of wastes to surface waters is prohibited, except as allowed by Standard Provision A.13 (see attached “Standard Provisions and Reporting Requirements for Waste Discharge Requirements (NPDES), March 1991”).
3. The discharge of leachate from wood fuel stockpiles or ash stockpiles directly to groundwater is prohibited.
4. The discharge of ash, bark, sawdust, wood, debris, or any other wastes recognized as originating from the facility to surface waters or surface water drainage courses is prohibited.
5. The discharge of hazardous or toxic substances, including water treatment chemicals, solvents, or petroleum products (including oil, grease, gasoline and diesel) to surface waters or groundwater is prohibited.
6. Discharge of waste classified as “hazardous” as defined in Section 2521(a) of Title 23, California Code of Regulations (CCR), Section 2510, et seq., (hereafter Chapter 15), or “designated,” as defined in Section 13173 of the California Water Code, is prohibited.

B. Effluent Limitations (Discharge 001)

1. The discharge of wastewater to the Mill Creek in excess of the following is prohibited:

<u>Parameter</u>	<u>Unit</u>	<u>30-Day Average</u>	<u>Daily Maximum</u>
Suspended Solids	mg/L	--	100
Settleable Solids	mL/L	0.1	0.2
Specific Conductance	µmhos/cm	700	900

2. The discharge shall not have a pH less than 6.0 or greater than 9.0.

3. Survival of aquatic organisms in 96-hour acute bioassays of undiluted waste shall be no less than:

Minimum for any one bioassay-----70%
Median for any three or more consecutive bioassays---90%

C. Discharge Specifications

1. Neither the treatment nor the discharge shall cause a pollution or nuisance as defined by the California Water Code, Section 13050.
2. The discharge shall not cause degradation of any water supply.
3. The dissolved oxygen content of the recycle ponds or the retention pond shall not be less than 1.0 mg/L.
4. Freeboard limitations for the recycle ponds and the retention pond shall be in effect in the following manner:
 - a. Between 1 October and 1 April, the Discharger shall maintain a minimum of two feet of freeboard in each pond (measured vertically to the lowest point of overflow).
 - b. During the remainder of the year, the Discharger shall maintain a minimum of 1 foot of freeboard in each pond.
5. Discharge to septic tank leachfield systems shall remain underground at all times.

D. Sludge, Wood Waste, and/or Ash Management

1. Collected screenings, sludge, and other solids removed from liquid wastes shall be disposed of in a manner approved by the Executive Officer and consistent with *Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste*, as set forth in Title 27, California Code of Regulations (CCR), Division 2, Subdivision 1, Section 20005, et seq.
2. Any proposed change in sludge or ash use or disposal practice shall be reported to the Executive Officer at least **30 days** in advance of the change.

3. Fly ash removed from the facility shall be:
 - a. Tilled into agricultural fields for soil amendment; or
 - b. Disposed in a dedicated unit consistent with Title 27, Section 20200(b); or
 - c. Disposed in a Class III landfill consistent with Title 27, Section 20220(d).

Any other use shall constitute disposal and shall be subject to Title 27, CCR requirements.

E. Receiving Water Limitations

Receiving water limitations are based upon water quality objectives contained in the Basin Plan. As such, they are a required part of this permit. The discharge shall not cause the following in Mill Creek:

1. Concentrations of dissolved oxygen to fall below 7.0 mg/L.
2. Oils, greases, waxes, or other materials to form a visible film or coating on the water surface or on the stream bottom.
3. Oils, greases, waxes, floating material (liquids, solids, foams, and scum), or suspended material to create a nuisance or adversely affect beneficial uses.
4. Aesthetically undesirable discoloration.
5. Fungi, slimes, or other objectionable growths.
6. The turbidity of receiving waters to increase over background levels by more than:
 - a. 1 NTU when background turbidity is between 0 and 5 NTUs;
 - b. 20 percent when background turbidity is between 5 and 50 NTUs;
 - c. 10 NTUs when background turbidity is between 50 and 100 NTUs; and
 - d. 10 percent when background turbidity is greater than 100 NTUs.

In determining compliance with the above limits, appropriate averaging periods may be applied upon approval by the Executive Officer.

7. The normal ambient pH to fall below 6.5, exceed 8.5, or change by more than 0.5 units. In determining compliance with these limits, appropriate averaging periods may be applied upon approval by the Executive Officer.
8. Deposition of material that causes nuisance or adversely affects beneficial uses.
9. Increase the normal ambient temperature of waters by more than 5°F (3°C).
10. Aquatic communities and populations, including vertebrate, invertebrate, and plant species, to be degraded.
11. Taste or odor-producing substances to impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin, or to cause nuisance or adversely affect beneficial uses.
12. Toxic pollutants to be present in the water column, sediments, or biota in concentrations that adversely affect beneficial uses; that produce detrimental response in human, plant, animal, or aquatic life; or that bioaccumulate in aquatic resources at levels which are harmful to human health.
13. Violations of any applicable water quality standard for receiving waters adopted by the Regional Board or the SWRCB pursuant to the CWA and regulations adopted thereunder.

F. Groundwater Limitation

1. Discharges from the facility shall not cause underlying groundwater or groundwater downgradient of the facility to:
 - a. Contain waste constituents in concentrations statistically greater than background water quality;
 - b. Exhibit a pH of less than 6.5 or greater than 8.5 pH units;
 - c. Impart taste, odor, toxicity, or color that creates nuisance or impairs any beneficial use.

G. Provisions

1. The Discharger shall comply with all the items of the “Standard Provisions and Reporting Requirements for Waste Discharge Requirements (NPDES),” dated 1 March 1991, which are part of this Order. This attachment and its individual paragraphs are referred to as “Standard Provision(s).”

2. The Discharger shall comply with the attached Monitoring and Reporting Program No. R5-2002-0132, which is a part of this Order, and any revisions thereto as ordered by the Executive Officer.
3. Should any of the analyses required in the Monitoring and Reporting Program No. R5-2002-0132 be performed by the Discharger or at a non-certified laboratory, the Discharger shall comply with all applicable parts of the Standard Provisions, Section C., Provisions for Monitoring including implementation of a Quality Assurance-Quality Control (QA-QC) Program and preparation of a QA-QC Plan. The QA-QC Program must conform to US EPA guidelines or to procedures approved by the Executive Officer. The QA-QC Plan must be prepared at least **one month** prior to on-site analysis, and reviewed and updated, if necessary, at a frequency not less than every 3 years.
4. The Discharger shall conduct monitoring as specified in Monitoring and Reporting Program No. R5-2002-0132, to determine if the discharge from Discharge 001 contains priority pollutants identified in the California Toxics Rule and National Toxics Rule as shown in Attachment E. Sampling for priority pollutants shall be performed during the first discharge of the **2002-2003 wet season** and during the first discharge of the **2006-2007 wet season** (or the wet season prior to permit renewal). If after a review of the 2002-2003 monitoring results it is determined that the discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above water quality objectives, this Order will be reopened and a limitation based on that objective included.
5. The Discharger shall conduct chronic toxicity testing **during the initial discharge of the 2002-2003 wet season** as specified in Monitoring and Reporting Program No. R5 2002-0132. If initial and confirmation testing indicates that the discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the water quality objective for toxicity, the Discharger shall initiate a Toxicity Identification Evaluation (TIE) to identify the causes of toxicity. Upon completion of the TIE, the Discharger shall submit a work plan to conduct a toxicity reduction evaluation (TRE), and upon approval conduct the TRE. This Order will be reopened to include a chronic toxicity limitation and/or a limitation for the specific toxicant identified in the TRE. Additionally, if a chronic toxicity water quality objective is adopted by the SWRCB, this Order may be reopened to include a limitation based on that objective.
6. The Discharger shall complete facility improvements designed to protect water quality, perform water quality studies, and implement an enhanced monitoring

program according to the following time schedule. The following reports shall be submitted pursuant to Section 13267 of the California Water Code, and shall be prepared by a California Registered Professional Engineer, Geologist, or Engineering Geologist. Any surveying shall be performed by a California Registered Land Surveyor or Engineer qualified to perform surveying.

- a. **Within 120 days** of Order adoption, the Discharger shall submit a work plan for characterization of groundwater quality. The work plan shall describe the installation and/or sampling of monitoring wells necessary to evaluate background groundwater quality and groundwater quality upgradient and downgradient of the recycle ponds, the retention pond, and the ash storage area. Every monitoring well shall be constructed to yield representative samples from the uppermost layer of the uppermost useable aquifer and to comply with applicable well standards. The work plan shall be consistent with, and include the items listed in, the first section of Attachment F, *Monitoring Well Installation Workplan*.
- b. **Within 60 days** of well installation, the Discharger shall submit a *Monitoring Well Installation Report* that describes the installation of groundwater monitoring wells and contains the items found in the second section of Attachment F.
- c. **Within 18 months** of well installation, the Discharger shall submit a *Background Groundwater Quality Study Report*. The report shall present a summary of monitoring data, calculation of the concentration in background monitoring wells, and comparison of background groundwater quality to that in wells used to monitor the facility. General minerals data shall be presented in tabular format, as well as in Trilinear and Stiff diagrams. Determination of background quality shall be made using the methods described in Title 27, Section 20415(e)(10), and shall be based on data from a minimum of four consecutive quarterly groundwater monitoring events. For each monitoring parameter/constituent, the report shall compare measured concentrations for compliance monitoring wells with the calculated background concentration.
- d. **Within 3 years** of Order adoption, the Discharger shall submit a technical report that proposes specific numeric groundwater limitations that reflect full implementation of BPTC measures. Should numerical limits other than background be proposed, the Discharger shall: 1) describe how the numerical limits were determined considering actual data from compliance monitoring wells and impact reductions through full implementation of

BPTC; and 2) submit results of a validated groundwater model to support its proposal. In addition, the technical report shall describe the overall status of compliance with implementation of BPTC measures and compliance with all groundwater background limitations.

7. **Within 24 months** of Order adoption, the Discharger shall submit a *BPTC Evaluation Report and Implementation Workplan*. The report shall identify portions of the facility requiring additional BPTCs and include a comprehensive evaluation of potential BPTCs for each such portion of the facility. The evaluation shall include an assessment of the implementability, effectiveness, and cost of each BPTC. Effectiveness shall be measured by reduction of impacts to groundwater including estimated concentration or mass loading reductions for each BPTC measure. Recommended BPTCs based on the BPTC evaluation, as well as an implementation schedule shall be proposed. The schedule for full implementation shall be as short as practicable, and in no case shall it exceed **nine months** past the Executive Officer's approval of the work plan unless approved by the Executive Officer. The component evaluation, recommended improvements, and implementation schedule are subject to the Executive Officer's approval.
8. **Within 3 years** of Order adoption, the Discharger may elect to submit documentation demonstrating that degradation of groundwater quality above background conditions resulting from activities at the facility is consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in the Regional Board's policies (e.g., quality that exceeds water quality objectives). Submitting this information is optional and at the discretion of the Discharger.
9. Upon completion of tasks set forth in Provision Nos. G.6, G.7, and G.8 the Regional Board shall consider the evidence provided and make a determination regarding whether the Discharger has implemented adequate BPTCs and the appropriate final numeric groundwater limitations that comply with Resolution No. 68-16. This Order may be reopened to incorporate final numerical limits.
10. **By 15 October of each year**, the Discharger shall submit a revised Water Management Plan outlining the operation of their recycle and retention ponds during the upcoming rainy season. The report shall summarize any problems encountered during the prior rainy season and describe improvements.
11. Septic tanks shall be inspected and pumped a minimum of **every three years**. A pumping report, which shall include volume of materials pumped and condition of

septic tanks, shall be submitted within **30 days** of pumping. Any septic tank or leachfield failure shall be reported immediately to the Regional Board.

12. The Discharger shall comply with all conditions of this Order, including timely submittal of technical and monitoring reports as directed by the Executive Officer. Violations may result in enforcement action, including Regional Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.
13. The Discharger has prepared a Storm Water Pollution Prevention Plan (SWPPP) containing best management practices to reduce pollutants in the storm water discharges. The Discharger shall amend the SWPPP whenever there is a change in construction, site operation, or maintenance that may affect the discharge of significant quantities of pollutants to surface water or groundwater. The SWPPP must also be amended if there are storm water-related violations of this permit, or the Discharger has not achieved the general objectives of controlling pollutants in the storm water discharges.
14. The Discharger shall comply with the standards contained in the Health and Safety Code, Chapter 6.67, Aboveground Storage of Petroleum.
15. The Discharger shall report promptly to the Regional Board any material change or proposed change in the character, location, or volume of the discharge or water treatment chemicals used. Notification on water treatment chemical changes shall include information from the manufacturer on toxicity and hazardous classifications.
16. The Discharger shall use the best practicable cost-effective control techniques(s) currently available to comply with discharge limits specified in this Order.
17. A copy of this Order shall be kept at the discharge facility for reference by operating personnel. Key operating personnel shall be familiar with its contents.
18. This Order expires on **1 July 2007** and the Discharger must file a Report of Waste Discharge in accordance with Title 23, CCR, not later than **180 days** in advance of such date an application for renewal of waste discharge requirements if it wishes to continue the discharge.
19. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall

notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office.

To assume operation 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, address, and the telephone number of the persons responsible for contact with the Regional Board, and a statement. The statement shall comply with the signatory paragraph of Standard Provision D.6 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 California Water Code. Transfer shall be approved or disapproved in writing by the Executive Officer.

I, THOMAS R. PINKOS, Acting Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 19 July 2002.

THOMAS R. PINKOS, Acting Executive Officer

MEW:

INFORMATION SHEET

ORDER NO. R5-2002-0132

SIERRA PACIFIC INDUSTRIES

QUINCY DIVISION
PLUMAS COUNTY

GENERAL INFORMATION

Sierra Pacific Industries operates a sawmill and wood-burning cogeneration facility in East Quincy in Section 18, T24N, R10E, MDB&M. The sawmill produces approximately 210 million board feet of lumber per year. The cogeneration plant currently produces a gross 27-megawatts (MW) of electric power, and a net 22-MW, which are sold on the market. The sawmill and the power plant are bordered by Mill Creek to the north and east, Lee Road to the south, and Bell Lane to the west. The facility is located on eight adjoining parcels of land totaling approximately 100 acres.

Storm Water and Surface Water

Approximately 75% of the 100-acre facility is paved. Site grading and the storm drainage system direct all storm water runoff to the northwest corner of the facility where log deck recycle ponds are located. Storm water runoff is managed by a pond system and eventually discharges to Mill Creek through Discharge 001. The Discharger states that the pond system is capable of retaining runoff from a 1-inch storm in a 24-hour period.

Presently, Discharge 001 is the only location where storm water from the sawmill and power plant leaves the site. However, a small truck shop is located west of Bell Lane. All storm water runoff from this truck shop discharges offsite. Since all equipment and materials are kept under cover and wash rack wash water from this truck shop is discharged to the East Quincy Services District wastewater treatment plant, no industrial storm water monitoring of this area is required.

Generally, there is flow in the segment of Mill Creek that borders the facility from October until early summer. In early summer, Mill Creek is dry as a result of upstream diversions.

The facility is in the Quincy Hydrologic Subarea (No. 518.52), as depicted on interagency hydrologic maps prepared by the Department of Water Resources (DWR) in August 1986. The average annual precipitation in Quincy is approximately 39.3 inches, as summarized in the table below.

<u>Month</u>	<u>Rainfall (in)</u>	<u>Month</u>	<u>Rainfal</u>
January	6.91	July	0.28
February	5.65	August	0.47

March	5.56	September	1.05
April	2.73	October	2.91
May	1.41	November	5.59
June	0.88	December	5.88
Annual Rainfall			39.32

Source: United States Forest Service

Groundwater

Shallow groundwater is approximately 11 to 30 feet below the ground surface (ft bgs). Boring logs indicate that the subsurface consists of clay and gravel with intermittent lenses of shale rock beginning at approximately 40 ft bgs. Shallow groundwater beneath the facility generally flows in the north to northwest direction. Six shallow groundwater monitoring wells were installed at the facility in 1989. No historical analytical data is available from the Discharger or in the case and monitoring files. A summary of the six wells is provided in the table below.

Summary of Groundwater Monitoring Well Information

<u>Well No.</u>	<u>Total Borehole Depth (ft)</u>	<u>Screen Interval¹ (ft bgs)</u>	<u>Top of Casing (ft msl)</u>	<u>Water Level² (ft msl)</u>	<u>Comments</u>
MW-1	31	14.5-29.5	NA	NA	Believed to be under fire pond berm
MW-2	31	15-30	NA	NA	Believed to be under large fuel pile
MW-3	35.5	19-34	3468.87	3444.12	Near retention pond and ash storage
MW-4	23	8-23	3445.33	3431.33	East of recycle ponds
MW-5	25.5	9-24	3442.26	3431.18	Southwest of recycle ponds
MW-6	23.5	8.5-23.5	3442.57	3428.99	Northwest of recycle ponds

¹ Wells constructed with Schedule 40 blank and machine slotted 0.02 inch PVC. Annular space backfilled using No. 20 mesh Monterey Sand. Annular space above sand zone sealed with bentonite chips followed by concrete/bentonite slurry.

² Water levels measured in May 2002.

The Discharger believes MW-1 (likely intended to be the upgradient background well) and MW-2 are covered by surface features. MW-3 to MW-6 were surveyed and sampled in May 2002. Metals were not detected in the three monitoring wells surrounding the recycle ponds. Elevated arsenic, chromium, copper, lead, zinc, sulfates, and chloride concentrations measured in MW-3 suggest that shallow groundwater in the northeast portion of the facility may be impacted by infiltration from the retention pond and/or leachate from the ash storage area. General groundwater quality is summarized in the table below:

Groundwater Quality Measured from MW-3 to MW-6 in May 2002

<u>Constituent</u>	<u>Result</u>	<u>Maximum Contaminant Level</u>
pH	6.9 to 7.2	6.5 to 8.5
Electrical Conductivity (µmhos/cm)	293 to 367	900

Total Dissolved Solids (mg/L)	171 to 218	500
Tannins and Lignins (mg/L)	<0.1 to 1.8	None

Two on-site groundwater production wells provide water to the plant for use in the log deck sprinkling system, cooling tower, and boiler, as well as for domestic use. The Discharger stated that the quality of the groundwater is high. The primary well produces approximately 300 gallons per minute (gpm), with a maximum capacity of approximately 500 gpm. The supplemental well provides approximately 25-30 gpm of water for the cooling tower. The supplemental well was installed in November 1998 and is approximately 270-feet deep well; no information is available for the primary well.

Six production wells operated by the East Quincy Services District surround the facility. The wells range from 115 to 775 ft in depth. The wells are sampled for general parameters, minerals, volatile organic compounds, metals, and fuel oxygenates. Sampling data submitted by the East Quincy Services District to the California Department of Health Services Division of Drinking Water indicate the quality of water from these supply wells meets drinking water standards.

Saw Mill Operations

The sawmill operation consists of log scaling, wet and dry log storage, mechanical log debarking, sawmill, planing mill, kilns, lumber storage, aboveground petroleum storage areas, equipment fueling and maintenance, paved and unpaved roadways, and an office. Wood waste from the sawmill is delivered to the cogeneration power plant by conveyor.

Approximately 65 million board feet of logs are stacked in paved decks, which cover 27 acres of the facility. During the dry summer months, the logs are sprinkled with water to prevent the development of blue stain and end checking. Excess log deck runoff drains to a log deck pond system. Log deck runoff contains bark, sawdust, tannins and lignins, dissolved organics, settleable, and suspended solids.

The log deck pond system, which provides treatment through settling, consists of a bark separator, four log deck recycle ponds (numbered Ponds 1 to 4), and one five-acre retention pond. The recycle ponds gravity drain and are valved to allow flexibility in operations. Pumps transfer water between the recycling ponds and the retention pond.

Discharge generally does not occur during the summer months (except during rare, extreme thunderstorms), and power plant process water and additional sprinkling make-up water are added. Wet season operation occurs after log deck sprinkling is terminated, usually late October or early November. During the wet season, runoff is discharged to Mill Creek.

Historically, the initial runoff from the first fall rains was contained in the recycle ponds and retention pond. After an initial flushing period, which could occur over a series of storms, runoff

from the log decks was discharged through a gravel diffuser before entering Mill Creek (Discharge 001). During the last three rainy seasons, discharge first occurred in late December/late January and ended in late March/mid-April. The quality of the settling pond effluent discharged in 2000 and 2001 is summarized in the Table below:

<u>Constituent</u>	<u>Result</u>
PH	6.4 to 7.3
Electrical Conductivity	130 to 225 µmhos/cm
Turbidity	8 to 40 NTU
Chemical Oxygen Demand	7.4 to 97 mg/L
Settleable Solids	<0.1 to 0.5 mL/L
Suspended Solids	23 to 95.6 mg/L
Tannins and Lignins	0.9 to 13.6 mg/L

To improve the quality of the discharge, in late December 2001 the Discharger started using the retention pond for settling. The Discharger has the option to route runoff from the recycle ponds to the retention pond for additional settling. Three aerators in the retention pond are periodically used to add dissolved oxygen and remove chemical oxygen demand. A floating pump skims water from within the first two feet of the retention pond surface. The Discharger does not anticipate pumping the pond below a depth of 12 feet (settled matter increases with depth). Pumped water continues to be discharged to Mill Creek at Discharge 001 through the gravel diffuser. Under this new settling process, two samples collected of water discharged in January 2002 contained the following:

<u>Compounds</u>	<u>January 2002 Results</u>
PH	7.16 – 7.6
Electrical conductivity (µmhos/cm)	278 – 280
Turbidity (mg/L)	3.0 – 24.5
Chemical oxygen demand (mg/L)	48 – 96
Settleable solids (mL/L)	<0.1
Suspended solids (mg/L)	12 – 12.6
Tannins and lignins (mg/L)	3.9 – 6.62
Acute toxicity - survival	100%

Prior to the first discharge of the wet season, the Discharger will sample the retention pond to determine if effluent limitations are met. Should contents not be suitable for discharge, the Discharger shall retain the contents in the retention pond and manage storm water as was done in past rainy seasons (i.e. retain the first flush in the retention pond and route storm water from subsequent storms through the recycle ponds for discharge at Discharge 001).

Settled matter is removed from the recycle pond bottoms approximately three to six months or as needed. The catch basin and Ponds 1 to 3 were cleaned in Fall 2001. Pond 4 is scheduled to be

cleaned in 2002. The retention basin currently contains minimal material and is not scheduled for cleaning. Bark and wood debris are reused off-site as landscape mulch or soil amendment.

Power Plant Operations

The power plant operates 24 hours per day. Maintenance, which lasts approximately 3 to 7 days, is scheduled in spring and early winter of each year. Water use at the power plant is summarized below:

- **Reverse osmosis.** The primary well supplies approximately 110 gpm of water to the power plant. Prior to use in the boiler, feed water is treated using reverse osmosis treatment. Approximately 30 gpm of concentrate (brine) from the reverse osmosis system is discharged to a collection sump that drains to the retention pond.
- **Demineralizer.** The remaining 80 gpm of treated water is polished with cation/anion exchange resins. Regeneration of these resins is performed on-site approximately every 4 to 5 days. Approximately 4,500 gallons of spent reject water are produced during each regeneration, neutralized with acids or bases, and discharged to the same collection sump that receives reverse osmosis concentrate.
- **Boiler.** Water that has been treated and polished is stored in a storage tank and then metered into the de-aerator (DA) tank prior to use in the boiler. The boiler generates steam for the 20 MW and 7.5 MW turbine generators. Steam from the 7.5 MW turbine generator is subsequently used in the dry kilns. Condensed steam is recycled back to the DA tank for reuse in the boiler. A low, metered volume of boiler blowdown water, which varies daily, is discharged to the collection sump.
- **Cooling Tower.** Approximately 25 to 80 gpm of water from the primary well, secondary well, and the cooling system air compressors are supplied to the cooling tower. Approximately 17 gpm of cooling tower blowdown water are discharged to the collection sump and the remainder is evaporated.

Discharge to the collection sump, which consists of reverse osmosis concentrate, demineralizer regeneration wastewater, boiler blowdown water, and cooling tower blowdown water was sampled in September 2001 by the Regional Board and contained the following:

<u>Compounds</u>	<u>Result</u>
Sodium	18 mg/L
Sulfate	13.2 mg/L
Chloride	11 mg/L
Specific Conductance	346 μ mhos/cm
Total Dissolved Solids	221 mg/L

Between 1,000 to 3,500 tons of ash are generated each month, averaging 22,000 tons per year. The ash is stored on-site temporarily in an unpaved area at the northern central portion of the site. The Discharger has considered paving the ash storage area. Ash is removed regularly and used at local ranches and farms as soil amendment. The following compounds were measured in ash sampled in July 2001 (using waste extraction tests with deionized water as the extractant):

<u>Compound</u>	<u>Concentration Range (µg/L)</u>
Arsenic	Not Detected
Cadmium	Not Detected
Hexavalent Chromium	42
Lead	97
Manganese	11,000
Nickel	40

Materials Storage

All the tanks at the facility are protected by roof coverings and secondary containment. A Spill Prevention Control and Countermeasure Plan, which was stamped by a registered civil engineer, was prepared in June 2002.

The following petroleum tanks are located in the fuel storage area: 20,000-gallon above ground diesel tank, 10,000-gallon aboveground diesel tank, 10,000-gallon above ground gasoline tank, and several 55-gallon lubricating oil tanks. Other fuels, oils, and chemicals are stored at various facility locations. Material Safety Data Sheets are available for all chemicals stored at the facility.

Domestic Waste

Domestic wastes are managed at the facility as follows:

- Domestic wastes generated from buildings along Lee Road, with the exception of the truck shop, are directed to the East Quincy Services District wastewater treatment plant. This includes waste from the forklift shop and an office on the south side of the facility. Additionally, wash water from the two on-site wash racks is discharged to the treatment plant.
- Domestic wastes generated from the truck shop and buildings within the central portion of the facility are discharged to six septic tank/leachfield systems at the facility that are summarized in the table below. The Discharger states that the septic tanks are pumped every 3 to 5 years. However, the Discharger is unsure of the age, condition, and configuration of the tanks.

<u>Location of Septic Tank</u>	<u>Size (gallons)</u>
Scale Shack	1,000
Planing Mill	1,500
Power Plant	1,200
Sawmill	2,000
Office	1,200
Truck Shop	1,500

REASONABLE POTENTIAL ANALYSIS for PRIORITY POLLUTANTS

Federal regulations contained in 40 CFR 122.4 (d) require effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause or contribute to an in-stream excursion above a narrative or numerical water quality standard.

USEPA adopted the National Toxics Rule (NTR) on 5 February 1993 and the California Toxics Rule (CTR) on 18 May 2000. The NTR and CTR contain water quality standards applicable to this discharge. The State Water Resources Control Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (known as the State Implementation Plan or SIP), which contains guidance on implementation for the NTR and CTR.

The Discharger sampled the effluent and receiving water on 17 December 2001 to determine if the priority pollutants established in the CTR and NTR were detected. Analytical results were submitted for volatile substances, semi-volatile substances, pesticide compounds, metals, asbestos, and dioxins.

Volatiles, Semi-Volatiles, and Pesticides

Seventy priority pollutant organic substances were not detected in the effluent and receiving water samples at concentrations that will cause or contribute to a violation of any applicable water quality criteria contained in the Basin Plan. Water quality criteria have been established for the remaining forty volatile substances, semi-volatile substances, and pesticides at concentrations less than laboratory detection limits. Based on current technology, it is reasonable to assume that these remaining constituents will not cause or contribute to violations of water quality criteria either. By the time this Order expires, lower laboratory detection limits may be possible. In addition, facility operations could change and priority pollutants currently not detected in the effluent could be found. Therefore, these requirements include monitoring for metals, volatile substances, semi-volatile substances, and pesticides prior to permit renewal.

Priority Pollutant Inorganics

With the exception of cyanide, the priority pollutant inorganics listed in the CTR were not detected in the effluent and receiving water samples at concentrations above water quality criteria. Based on current facility operations and analytical data, it is reasonable to assume that arsenic, antimony, beryllium, cadmium, chromium, hexavalent chromium, copper, nickel, selenium, silver, thallium, and zinc will not be detected in the discharge at concentrations that will cause or contribute to a violation of any applicable water quality criteria contained in the Basin Plan. However, zinc has been detected at elevated levels at similar facilities.

Cyanide. Cyanide was measured in the Discharger's effluent at 6 ug/L but was not detected in the receiving water. According to 40 CFR 131, the freshwater criterion continuous concentration for cyanide, which is the highest concentration to which aquatic life can be exposed for an extended period of time (4 days) without deleterious effects, is 5.2 ug/L. Based on limited analytical data, these requirements include additional monitoring to determine if water quality-based effluent limits for cyanide are necessary.

Asbestos

Asbestos fibers were not detected in the discharge above the reporting limit of 0.023 million fibers per liter (MFL). The water quality objective for asbestos is 7 MFL. Based on facility operations and analytical data, it is reasonable to assume that asbestos will not be detected in the effluent at concentrations that will cause or contribute to a violation of applicable water quality standards described in the Basin Plan.

2,3,7,8-TCDD and 2,3,7,8-TCDD Congeners

The priority pollutant 2,3,7,8-TCDD was not detected above the method detection limit of 1.4 pg/L in the one effluent sample that was submitted by the discharger. According to 40 CFR 131, the concentration associated with the 1×10^{-6} human health cancer risk for consumption of water and organisms is 0.013 pg/L.

The Discharger was also required by the SIP to sample the effluent twice for the seventeen 2,3,7,8-TCDD congeners. The samples contained 1,2,3,4,6,7,8-HpCDD at 65 pg/L and OCDD at 540 pg/L. The Toxicity Equivalent Factors (TEF) for 1,2,3,4,6,7,8-HpCDD and OCDD are 0.01 and 0.0001, respectively. Using the reported values, the total TEF is 0.704 pg/L. The SIP requires the Regional Board submit this information to the State Water Resources Control Board.

BASIS FOR PERMIT CONDITIONS

The primary fuel source for the power plant is excess biomass from onsite sawmill activities; diesel is used as a supplementary fuel for startup and flame stabilization of the plant's boilers. Since fossil fuel is used secondarily, effluent limitations established in the Code of Federal Regulations, Steam Electric Power Generating Point Source Category (40 CFR 423) are not applicable to this facility. Logs are stored at the facility. Water is sprayed on the logs; therefore, effluent limitations established in Timber Products Processing Point Source Category, Wet Storage Subcategory (40 CFR Part 429, Subpart I) are applicable.

Discharge Prohibitions

The Basin Plan provides that all waters shall be maintained free of toxic substances. Water treatment chemicals used in maintaining the water quality within the boiler and cooling tower may cause toxicity to aquatic life. The Order prohibits the discharge of hazardous or toxic substances (including water treatment chemicals) to surface waters or drainage courses.

The Basin Plan states that surface water shall not cause oils, greases, or other materials in concentrations that cause nuisance or result in a visible film or coating on the surface of the water. This Order prohibits the discharge of petroleum products (including oil, grease, gasoline, and diesel) to surface waters or surface water drainage courses.

Effluent Limitations

Settleable Solids. **The Basin Plan states that waters shall not contain substances in concentrations that result in deposition of material that causes nuisance or adversely affects beneficial uses. The Order contains monthly average and daily maximum settleable solids limits of 0.1 ml/L and 0.2 ml/L respectively. The settleable solids limits in this permit are based on what can reasonably be achieved in well-designed, constructed and operated settling ponds. These limits are consistent with the previous Order.**

Suspended Solids. The Basin Plan states that waters shall not contain suspended material in concentrations that cause nuisance or adversely affects beneficial uses. The Order contains a daily maximum suspended solids limit of 100 mg/L. The suspended solids limit in this permit is based on benchmark values established by the USEPA and is comparable with the suspended solids limit of a similar facility in Plumas County.

Specific Conductance. **The agricultural water quality objective for specific conductance, based on salt sensitivity to certain crops, is 700 mg/L. The California Secondary Maximum Contaminant Level for specific conductance is 900 mg/L. Since the receiving water is used to irrigate crops, this Order limits the 30-day average specific conductance concentration to 700 mg/L, and the daily maximum to 900 mg/L. Effluent limitations for specific conductance had not been included in the previous Order.**

pH Limits. This Order requires the effluent pH to remain between 6.0 and 9.0 units. These limits are consistent with the limits in the previous Order and Timber Products Processing Point Source Category, Wet Storage Subcategory (40 CFR Part 429, Subpart I)

Acute Toxicity Limits. **The effluent generally consists of blowdown wastewater, log deck debris, ash, and storm water. This Order contains effluent limits for acute toxicity and monitoring for acute, which is consistent with the previous Order. Chronic toxicity has also been added, which is consistent with the monitoring and reporting programs of similar facilities.**

Monitoring and Reporting

Recycle Ponds. Freeboard monitoring is required to determine compliance with Discharge Specification C.5. The recording of settled matter depth is added to determine the frequency of pond cleaning.

Retention Pond. The Discharger had recently changed their pond management process. In previous years, the Discharger had contained storm water from the first rains in their retention pond. Wood debris and recycle water accumulated from the summer log deck recycle operations were therefore retained. Subsequent storm water runoff of the season was discharged to Mill Creek through the smaller recycle ponds. Under this process, the Discharger had difficulties complying with the settleable matter effluent limitation of 0.2 mL/L. For that reason, to achieve more settling capacity, the Discharger has the option to use the retention pond, in addition to the

recycle ponds to manage all storm water (i.e. first rains as well as subsequent runoff). The Regional Board however is concerned that under this new process there may be a greater potential for toxicity problems associated with the discharge since the debris and recycle water that were formally contained are now released in the discharge.

There is little monitoring data associated within this new pond management process. This monitoring and reporting program requires that the Discharger sample the retention pond annually before the first discharge of the wet season to determine if effluent limitations are met. Should contents not be suitable for discharge, the Discharger shall retain the contents in the retention pond and manage storm water as was done in past rainy seasons (i.e. retain the first flush in the retention pond and route storm water from subsequent storms through the recycle ponds for discharge at Discharge 001).

Precipitation. This monitoring is added to determine when the effluent contains storm water.

Effluent (Discharge 001). Effluent monitoring for pH, specific conductance, suspended solids, and settleable solids is required to determine compliance with Effluent Limitations B.1 and B.2. Effluent monitoring for tannins and lignins, COD, and turbidity is required to determine compliance with Discharger Prohibitions A.2 to A.5.

Monitoring required under the General Permit for Discharges of Storm Water Associated with Industrial Activities (General ISW Permit) includes: pH, total suspended solids, oil and grease, and specific conductance. Under the General ISW Permit, additional zinc monitoring for Sector A1, General Sawmills and Planing Mills Standard Industrial Classification (SIC 2421) and iron monitoring for Sector O, Steam Electric Power Generating Facilities (SIC 4911) are also required. To be consistent with the General Order, semi-annual monitoring for these parameters is required to be collected during the first hour of the first discharge after the dry season and once thereafter during the wet season. Zinc monitoring has also been added because zinc has been detected at similar facilities. Hardness monitoring has also been added because zinc toxicity is hardness dependant.

Although acute toxicity data has been submitted bimonthly for the past 15 years in accordance with the existing monitoring and reporting program, no acute toxicity has been observed; therefore, this Order reduces acute toxicity monitoring to twice annually but requires that sampling include the initial discharge of the wet season. This frequency is protective since the Discharger is required to sample the first discharge, which would likely have the highest toxicity.

Chronic Toxicity. Order No. 96-280 did not require chronic toxicity testing, and chronic toxicity testing has not been performed in the past 5 years from discharge from the facility. Therefore, this Order requires chronic toxicity monitoring to be performed annually. Sampling

shall be representative of the first discharge. The frequency may be reduced if no toxicity is exhibited during the first two years of testing upon approval by the Executive Officer.

Receiving Water. Visual monitoring of the receiving water continues from the previous Order. To clarify sample collection times during storm water runoff, the presence or absence of upstream flow is added to the visual monitoring program. Receiving water monitoring for dissolved oxygen, turbidity, pH, and specific conductance is continued to determine compliance with Receiving Water Limitations E.1, E.6, E.7, and E.12. The addition of hardness, iron and zinc monitoring is consistent with effluent requirements of similar SIC 2421 and 4911 facilities.

Ash. Order No 96-280 requires monthly ash monitoring for total dissolved solids, specific conductance, total organic carbon, and pH and quarterly monitoring for arsenic, cadmium, hexavalent chromium, lead, manganese, and nickel. The Discharger has reported detectable soluble hexavalent chromium, lead, manganese, and nickel in their ash. This Order reduces the ash monitoring since significant changes in ash concentrations have not historically been measured. The Discharger is required to sample ash annually. Because of ash sampling results at other similar facilities and the use of the ash for soil amendment on agricultural lands, the Order adds monitoring for general minerals, additional priority pollutant metals, aluminum, barium, boron, cobalt, iron, molybdenum, vanadium, and dioxins. Dioxin analysis is required once within the first year of Order adoption. The Discharger is requested to analyze for soluble constituents to determine potential impacts to groundwater, and total constituents to determine contaminant loading rates at soil amendment application areas.

Groundwater Monitoring. Resolution No. 68-16 requires the Regional Board in regulating the discharge of waste to maintain high quality waters of the state unless it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in the Regional Board's policies (e.g., constituent concentrations that exceed water quality objectives). The Regional Board has considered Resolution No. 68-16 and finds that the current discharge may be inconsistent with this policy, and could cause an increase in groundwater constituent concentrations above water quality objectives, specifically: pH, specific conductance, total dissolved solids, and metals. Additionally, it has not been demonstrated that degradation of groundwater by this discharge is consistent with maximum benefit to the people of the State. Therefore, groundwater limitations are necessary for the discharge to be in compliance with the Basin Plan and to assure that the discharge, as permitted herein, is consistent with Resolution No. 68-16. The Discharger is required to propose and fully implement Best Practicable Treatment or Control (BPTC) measures so that the discharge does not create a condition of pollution or nuisance and that the highest water quality will be maintained.

Characterization of the wood fuel, blowdown pond, and domestic wastewater disposal system indicates the recycled ponds, the retention pond, and leachate from the unpaved ash storage area

have a reasonable potential to impact the underlying usable groundwater by migrating through the permeable subsurface materials. The potential impacts on usable groundwater and the appropriate level of degradation that complies with Resolution No. 68-16 have not been fully evaluated. The Discharger's current effort does not constitute BPTC as intended in Resolution No. 68-16. This Order establishes a schedule of tasks to evaluate BPTC for facility storage and disposal components and to characterize the groundwater. Completion of these tasks, and implementation of the approved strategies will ensure that BPTC and the highest water quality consistent with maximum benefit to the people of the State will be achieved.

This Order establishes background groundwater limitations for the facility and contains tasks for evaluating groundwater conditions and assuring that BPTCs are implemented. This Order also includes a provision to reopen the Order should it be determined that groundwater degradation is consistent with maximum benefit to the people of the state. Accordingly, the discharge is consistent with Resolution No. 68-16. Based on the results of the scheduled tasks, the Regional Board may reopen this Order to reconsider groundwater limitations and other requirements to comply with Resolution No. 68-16.

Priority Pollutant Monitoring. Federal regulations contained in 40 CFR 122.4 (d) require effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause or contribute to an in-stream excursion above a narrative or numerical water quality standard.

The Monitoring and Reporting Program requires monitoring to determine if discharge from Discharge 001 contains priority pollutants identified in the CTR and NTR. In December 2001, the Discharger collected receiving water and discharge samples and submitted them for priority pollutant and dioxin analysis. One additional sampling event is required from the first discharge in the 2002-2003 wet season. However, the Discharger is not required to perform additional asbestos sampling because it has been determined that asbestos does not have a reasonable potential to cause or contribute to a violation of applicable water quality standards.

If after a review of the monitoring results, it is determined that the discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above water quality objectives, this Order will be reopened and limitations based on those objectives included. The Discharger is also required collect one discharge sample from the initial discharge during the 2006-2007 wet season for priority pollutant analysis. This information shall be used in the permit renewal process scheduled for 2007.

Aboveground Petroleum Storage. This visual monitoring is added to determine compliance with the facility's Spill Prevention Control and Countermeasure Plan.

MEW: 19 July 2002

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

NPDES NO. CA0080357

MONITORING AND REPORTING PROGRAM NO. R5-2002-0132
FOR
SIERRA PACIFIC INDUSTRIES
QUINCY DIVISION
PLUMAS COUNTY

The monitoring and reporting program incorporates requirements for monitoring the following: recycle ponds, retention pond, precipitation, effluent (Discharge 001), toxicity, receiving water (R-1 and R-2), ash, groundwater, priority pollutants, and aboveground petroleum storage. This monitoring and reporting program shall not be changed unless a revised monitoring and reporting program is issued by the Executive Officer.

RECYCLE POND MONITORING

Each recycle pond shall be monitored as follows and information shall be submitted monthly:

	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Freeboard	Feet, inches	Staff Gauge	Weekly
Settled Matter Depth	Feet, inches	Visual	Annually prior to rainy season

The date of the last cleaning and the estimated date of the next cleaning for each pond shall also be documented in each monthly monitoring report.

RETENTION POND MONITORING

Samples shall be collected from the retention pond prior to a scheduled discharge. The date and time of collection shall be recorded. Retention pond monitoring shall include at least the following:

<u>Constituent</u>	<u>Unit</u>	Type of <u>Sample</u>	Sampling <u>Frequency</u>
Freeboard	Fee t, inches	Sta ff Gauge	W eekly
pH	units	Grab	Annually ¹
Specific Conductance	umhos/cm	Grab	Annually ¹
Iron (Total)	mg/L	Grab	Annually ¹
Zinc (Total and Dissolved)	mg/L	Grab	Annually ¹
Hardness	mg/L	Grab	Annually ¹
Tannins & Lignins	mg/L	Grab	Annually ¹
COD	mg/L	Grab	Annually ¹
Acute Toxicity	% Survival	Grab	Annually ¹

¹Annually prior to first discharge of the rainy season.

PRECIPITATION MONITORING

Precipitation information shall be collected as follows and submitted monthly:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Precipitation	Inches	Gauge	Daily

EFFLUENT MONITORING (DISCHARGE 001)

Effluent samples shall be collected at the point of discharge from the gravel diffuser to Mill Creek (Discharge 001). The results shall be submitted with the monthly monitoring report and include the following:

<u>Constituent</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Sampling Frequency¹</u>
Estimated Discharge Flow	cfs	Continuous	Daily
pH	Units	Grab	Weekly ²
Specific Conductance	umhos/cm	Grab	Weekly ²
Settleable Solids	mL/L	Grab	Weekly ²
Total Suspended Solids	mg/L	Grab	Weekly ²
Turbidity	NTU	Grab	Weekly ²
Tannins & Lignins	mg/L	Grab	<u>Weekly²</u>
COD	mg/L	Grab	Weekly ²
Oil and Grease	mg/L	Grab	Twice per year ³
Iron (Total)	mg/L	Grab	Twice per year ³
Zinc (Total and Dissolved)	mg/L	Grab	Twice per year ³
Hardness	mg/L	Grab	Twice per year ³
Acute Toxicity ⁴	mg/L	Grab	Twice per year ³

¹ Samples shall be collected during the first hour from the first discharge after the dry season and according to sampling frequency thereafter.

² Samples shall be collected during continuous discharge. If the discharge is intermittent rather than continuous, then the first day of each intermittent discharge shall be monitored, but no more than twice the frequency noted.

³ Samples shall be collected during the first hour of the first discharge after the dry season and once thereafter during the wet season.

⁴ 96-hour bioassay using rainbow trout as the test species. After two years of monitoring, should no toxicity be measured, frequency may be reduced to annually with the approval of the Executive Officer.

THREE SPECIES CHRONIC TOXICITY

Chronic toxicity monitoring of the first available sample from the retention pond or (Discharge 001) shall be conducted **annually** to determine whether the effluent is contributing toxicity to Mill Creek. The sample shall be representative of the initial discharge of the wet season. The testing shall be conducted as specified in EPA 600/4-91-002, or latest edition. If undiluted effluent exhibits toxicity, the Discharger shall sample during the next available discharge event and conduct the test using the dilution series specified below. Chronic toxicity samples shall be collected at the discharge prior to its entering Mill Creek. Twenty-four hour composite or individual grab samples shall be representative of the volume and quality of the discharge. Date and time of sample collection shall be recorded. The results shall be submitted with the monitoring report and include the following:

Species: Pimephales promelas, Ceriodaphnia dubia, and Selenastrum capricornutum

Frequency: Annually, during the first hour from the first discharge after the dry season. If no toxicity is exhibited during the first two years of testing the frequency may be reduced upon approval by the Executive Officer.

	Dilutions (%)					Controls	
	<u>100</u>	<u>75</u>	<u>50</u>	<u>25</u>	<u>12.5</u>	Receiving Water	Lab Water
% Discharge 001 Effluent	100	75	50	25	12.5	0	0
% Dilution Water ¹	0	25	50	75	87.5	100	0
% Lab Water	0	0	0	0	0	0	100

¹ Dilution water shall be receiving water from Mill Creek taken upstream from the discharge point. If the receiving water exhibits toxicity, or if no receiving water is available, the Discharge may be required to use lab water as dilution water. The dilution series may be modified after the initial test upon approval of the Executive Officer.

RECEIVING WATER MONITORING

All receiving water samples shall be grab samples. Receiving water samples shall be taken from the following:

<u>Station</u>	<u>Description</u>
R-1	Mill Creek, 100 feet upstream of Discharge 001
R-2	Mill Creek, downstream at Bell Lane Crossing

In conducting the receiving water sampling, a log shall be kept of the receiving water conditions in Mill Creek bounded by Stations R-1 and R-2. Attention shall be given to the presence of or absence of:

- | | |
|---------------------------------|--------------------------------|
| a. Bark or sawdust | e. Scum or foam |
| b. Floating or suspended matter | f. Bottom deposits |
| c. Oil sheen or slick | g. Aquatic life |
| d. Discoloration | h. Upstream flow in Mill Creek |

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

Grab samples shall be collected at approximately the same time as the discharge samples. The results shall be submitted with the monthly monitoring report and include the following:

<u>Constituent</u>	<u>Unit</u>	<u>Station</u>	<u>Frequency</u>
Flow	cfs	R-1	Weekly During Discharge ¹
pH	Units	R-1, R-2	Weekly During Discharge
Specific Conductance	umhos/cm	R-1, R-2	Weekly During Discharge
Turbidity ²	NTU	R-1, R-2	Weekly During Discharge
Hardness	mg/L	R-1, R-2	Twice per year During Discharge
Iron (Total)	mg/L	R-1, R-2	Twice per year During Discharge
Zinc(Total and Dissolved)	mg/L	R-1, R-2	Twice per year During Discharge

¹ Samples shall be collected during the first hour from the first discharge after the dry season and according to sampling frequency thereafter. When possible, receiving water sampling shall coincide with effluent monitoring.

² Turbidity shall be determined by (1) individual samples or (2) by samples taken over an appropriate averaging period.

(1) Individual sampling – once per week during discharge.

(2) Averaging Periods – a minimum of four samples per day from each upstream and

each downstream station for a period of up to 4 days during discharge. Samples collected for averaging must be spaced at least 3 hours apart.

ASH MONITORING

The Discharger shall record the following information **monthly**:

2. Volume of fly ash and bottom ash generated (recorded individually)
3. Volume of material stored at facility
4. Volume of material removed from facility
5. Disposal location or soil amendment application area

Should ash be used as a soil amendment, the following shall be described **monthly** for each application area:

2. Area of land where ash is applied (acres)
3. Volume of ash applied (cubic yards)

A representative composite sample of the fly ash shall be tested **annually** for total and dissolved constituents. Dissolved constituents shall be obtained using the Waste Extraction Test (WET) described in the CCR, Title 22, Division 4, Chapter 30, with deionized water for the extraction solvent. The deionized water extract shall be analyzed for the following. **By 1 February of each year**, the analytical results and the above information shall be summarized and submitted in a report.

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling</u>
--------------------	--------------	-----------------------	-----------------

Moisture Content

pH



General Minerals ¹	mg/kg; mg/L	Composite	
Priority Pollutant Metals ²	mg/kg; ug/L	Composite	
Aluminum	mg/kg; ug/L	Composite	
Barium	mg/kg; ug/L	Composite	Annually
Boron	mg/kg; ug/L	Composite	
Cobalt	mg/kg; ug/L	Composite	
Iron	mg/kg; ug/L	Composite	
Manganese	mg/kg; ug/L		
Molybdenum	mg/kg; ug/L	Composite	
Vanadium	mg/kg; ug/L	Composite	
2,3,7,8-TCDD and congeners	pg/g; pg/L	Composite	} Once during first year of Order adoption.

¹ Includes bicarbonate, carbonate, calcium, chloride, magnesium, nitrate, potassium, silica, sodium, and sulfate.

² Includes the following: antimony, arsenic, beryllium, cadmium, chromium III, chromium IV, copper, cyanide, lead, mercury, nickel, selenium, silver, thallium, zinc.

GROUNDWATER MONITORING

A groundwater monitoring program to assess upgradient conditions and impacts to groundwater quality shall be implemented. The parameters listed in the following table shall be measured when sampling groundwater. The monitoring network and sampling strategy shall be established as discussed in Provision G.6 of the Order. The date and time of collection as well as sample preservative shall be recorded.

<u>Constituent</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sampling Frequency</u>
Depth to Water Table	ft below top of casing	Measurement	Monthly/Quarterly ¹
Water Table Elevation	ft above msl	Measurement	Monthly/Quarterly ¹
pH	Units	Grab	Quarterly ¹
Temperature	° F	Grab	Quarterly ¹
Electrical conductivity	umhos/cm	Grab	Quarterly ¹
Total Dissolved Solids	mg/L	Grab	Quarterly ¹
Tannins & Lignins	mg/L	Grab	Quarterly ¹ /Annually ²
Priority Pollutant Metals ³	mg/L	Grab	Quarterly ¹ /Annually ²
Manganese	mg/L	Grab	Quarterly ¹ /Annually ²
General Minerals ⁴	mg/L	Grab	Annually for two years

¹ Quarterly sampling shall begin after installation of additional wells described in Provision G.6 of Order.

² Groundwater samples from groundwater monitoring wells shall be analyzed quarterly for the first year. After one full year of monitoring, if concentrations of any constituent are consistently below California and/or Federal Maximum Contaminant Levels, California Public Health Goals, and/or background levels at specific wells, the frequency may be reduced at specific wells to annually. Should the concentration of any constituent be measured above these levels at any later time, sampling shall be performed quarterly. No change in monitoring frequency shall be made without written approval from the Executive Officer.

³ Includes antimony, arsenic, beryllium, cadmium, chromium III, chromium IV, copper, cyanide, lead, mercury, nickel, selenium, silver, thallium, zinc

⁴ Includes bicarbonate, carbonate, calcium, chloride, magnesium, nitrate, potassium, silica, sodium, and sulfate.

PRIORITY POLLUTANT MONITORING

The Discharger shall conduct **two** sampling events to determine if the discharge from Discharge 001 at Mill Creek contains priority pollutants identified in the California Toxics Rule and National Toxics Rule as shown in Attachment E. The Discharger is not required to perform additional asbestos sampling because it has been determined that asbestos does not have a reasonable potential to cause or contribute to a violation of applicable water quality standards.

The first sampling event shall be conducted during **the initial discharge of the 2002-2003 wet season** and results shall be reported by **15 February 2003**. During this first sampling event, grab samples shall be collected from Discharge 001 and upstream receiving water station R-1 and analyzed for the pollutants identified in Attachment E. Additionally, one sample from Discharge 001 shall be collected and analyzed for the 17 congeners.

The second sampling event shall be conducted during **the initial discharge of the 2006-2007 wet season**. Results shall be reported by **15 February 2007** and used during the permit renewal process scheduled for 2007. During this second sampling event, grab samples shall be collected only from Discharge 001 and analyzed only for the pollutants identified in Attachment E (no dioxin congener information is required).

Effluent and upstream samples must include pH and hardness in order to calculate translators, which are needed for metals that are hardness and/or pH dependent. All analyses shall be performed at a laboratory certified by the California Department of Health Services. The laboratory is required to submit the Minimum Level (ML) and the Method Detection Limit (MDL) with the reported results for each of the constituents listed in Attachment E. Analyses by methods other than those specified in this monitoring and reporting program must receive prior approval by the Executive Officer.

All organic analyses shall be by Gas Chromatography/Mass Spectrometry (GCMS), Method 8260B for volatiles and Method 8270C for semi-volatiles. Pesticides shall be analyzed by Method 8081A. Dioxins shall be analyzed by Method 1613/8290. If organic analyses are run by Gas Chromatography (GC) methods, any detectables are to be confirmed by GCMS. Inorganics shall be analyzed by the following Methods:

ICP/MS-EPA Method 1638	Antimony, Beryllium, Cadmium, Copper, Lead, Nickel, Selenium, Silver, Thallium, Total Chromium, Zinc
CVAA-EPA Method 1631	Mercury
HYDRIDE-EPA Method 206.3	Arsenic
FAA-EPA Method 218.4	Chromium VI
Colorimetric-EPA Method 335./ 2 or	Cyanide

3

Abbreviations:

FAA-Flame Atomic Absorption

**CVAA-Cold Vapor Atomic
Absorption**

**ICP/MS-Inductively Coupled Plasma/Mass
Spectrometry
HYDRIDE-Gaseous Hydride Atomic Absorption**

Dioxin congeners analysis shall be performed as described in the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Plan)* using High Resolution Mass Spectrometry.

ABOVEGROUND PETROLEUM STORAGE MONITORING

The Discharger shall visually inspect the aboveground petroleum storage tanks, as required by the facility's Spill Prevention Control and Countermeasure Plan. A report of the inspection shall be submitted. In the event of a petroleum release, a report shall be submitted describing the corrective action that was taken to remediate and dispose of the contaminated area. The results shall be submitted with the monthly monitoring report.

REPORTING

Unless otherwise specified, monitoring results shall be submitted to the Regional Board by the **1st day of the second month** following sample collection. (i.e., the January report is due by 1 March).

In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner to illustrate clearly whether the discharge complies with waste discharge requirements.

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

The Discharger shall also submit an annual report to the Regional Board with both tabular and graphical summaries of the monitoring data obtained during the previous year. The report shall discuss the compliance record. If violations have occurred, the report shall also discuss the corrective actions taken and planned to bring the discharge into full compliance with the waste discharge requirements. Annual reports shall be submitted by **1 February of each year**.

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

The Discharger shall implement the above monitoring program as of the date of this Order.

Ordered by: _____
THOMAS R. PINKOS, Acting Executive Officer

19 July 2002

(Date)

WASTE DISCHARGE REQUIREMENTS ORDER NO. R5-2002-0132
SIERRA PACIFIC INDUSTRIES
QUINCY DIVISION
PLUMAS COUNTY

-44-