CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2016-XXXX

FOR

SIERRA PACIFIC INDUSTRIES
CHINESE CAMP MILL
TUOLUMNE COUNTY

This Monitoring and Reporting Program (MRP) is required pursuant to California Water Code (CWC) section 13267.

The Discharger shall not implement any changes to this MRP unless and until the Central Valley Water Board adopts, or the Executive Officer issues, a revised MRP. Changes to sample location shall be established with concurrence of Central Valley Water Board staff, and a description of the revised stations shall be submitted for approval by the Executive Officer.

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. All analyses shall be performed in accordance with ***Standard Provisions and Reporting Requirements for Waste Discharge Requirements***, dated 1 March 1991 (Standard Provisions).

Field test instruments (such as pH) may be used provided that the operator is trained in the proper use of the instrument and each instrument is serviced and/or calibrated at the recommended frequency by the manufacturer or in accordance with manufacturer instructions.

Analytical procedures shall comply with the methods and holding times specified in the following: *Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater* (EPA); *Test Methods for Evaluating Solid Waste* (EPA); *Methods for Chemical Analysis of Water and Wastes* (EPA); *Methods for Determination of Inorganic Substances in Environmental Samples* (EPA); *Standard Methods for the Examination of Water and Wastewater* (APHA/AWWA/WEF); and *Soil, Plant and Water Reference Methods for the Western Region* (WREP 125). Approved editions shall be those that are approved for use by the United States Environmental Protection Agency or the California Department of Public Health's Environmental Laboratory Accreditation Program. The Discharger may propose alternative methods for approval by the Executive Officer.

If monitoring consistently shows no significant variation in magnitude of a constituent concentration or parameter after at least 12 months of monitoring, the Discharger may request this MRP be revised to reduce monitoring frequency. The proposal must include adequate technical justification for reduction in monitoring frequency.

A glossary of terms used within this MRP is included on page 10.

The Discharger shall monitor the following locations to demonstrate compliance with the requirements of this Order:

Monitoring Location	Monitoring Location Description
PND-001	Location where a representative sample of the water in the Upper Pond can be obtained.
PND-002	Location where a representative sample of the water in the Lower Pond can be obtained.
R-1	Location where a representative sample of the surface water from Six-Bit Gulch Creek can be obtained. Sample location to be a minimum of 200 feet up-stream of the Facility.
R-2	Location where a representative sample of the surface water from Six-Bit Gulch Creek can be obtained. Sample location to be a minimum of 50 feet down-stream of the Facility before any other stream or tributary converges into Six-Bit Gulch Creek.
SPL-001	Location where a representative sample of the make-up water used in the log deck sprinkler system can be obtained.
LSA-001	Location where the discharge to the land spreading area can be monitored.
W-9 and W-10	Groundwater monitoring wells around the Upper and Lower Ponds.
GW-1 through GW-5	Additional groundwater monitoring wells.

POND MONITORING

Permanent Markers (e.g., staff gauges) shall be placed in all ponds. The markers shall have calibrations indicating water level at design capacity and available operational freeboard.

The Discharger shall monitor the water in both the Upper and Lower Ponds at PND-001 and PND-002, when water is present. Samples shall be representative of the volume and nature of the discharge. Time of collection of the samples shall be recorded. Pond monitoring shall include at least the following:

Frequency	Constituent/Parameter	Units	Sample Type
Weekly	Freeboard	Feet	Observation
Monthly	pH	pH Units	Grab
Monthly	EC	umhos/cm	Grab
Semi-Annually[1]	Oil & Grease	mg/L	Grab

Frequency	Constituent/Parameter	Units	Sample Type
Semi-Annually[1]	Tannin & Lignin	mg/L	Grab
Semi-Annually[1]	Biochemical Oxygen Demand (BOD)	mg/L	Grab
Semi-Annually[1]	Total Suspended Solids (TSS)	mg/L	Grab
Semi-Annually[1]	Total Organic Carbon (TOC)	mg/L	Grab
Semi-Annually[1]	Arsenic	ug/L	Grab
Semi-Annually[1]	Barium	ug/L	Grab
Semi-Annually[1]	Aluminum	ug/L	Grab
Semi-Annually[1]	General Minerals[2]	various	Grab

1. Samples to be collected Semi-Annually during the 2nd quarter (between April and June) and the 4th quarter (between October and December. Water in PND-001 to be collected at least once annually within 48 hours following the season's first significant precipitation event.
2. General mineral analysis shall include, alkalinity (as CaCO3), bicarbonate (as CaCO3), boron, calcium, carbonate (CaCO3), chloride, hardness, iron, magnesium, manganese, nitrate as nitrogen, phosphate, potassium, sodium, sulfate and total dissolved solids (TDS). Samples collected for metals shall be filtered with a 0.45 micron filter prior to preservation, digestion, and analysis.

SURFACE WATER MONITORING

Surface water monitoring of Six-Bit Gulch Creek shall be performed only when the creek is flowing (i.e., not when creek contains just stagnant water). Surface water samples shall be collected at R-1 and R-2, up-stream and down-stream of the Facility and analyzed for the following constituents.

Frequency	Constituent/Parameter	Units	Sample Type
Monthly	EC	umhos/cm	Grab
Monthly[1]	Chloride	mg/L	Grab

1. Samples to be analyzed only when the EC of the down-stream location (R-2) is greater that the up-stream location (R-1) by five percent or more.

SUPPLY WATER MONITORING

The Discharger shall collect samples of its supply water for the Facility's log deck sprinkler system at SPL-001, and analyze them for the constituents specified below. If the supply water is from more than one source, the results shall be presented as a flow-weighted average of all sources.

Frequency	Constituent/Parameter	Units	Sample Type
Monthly	Volume	gallons	Metered
Quarterly[1]	EC	umhos/cm	Grab
Annually[2]	pH	pH units	Grab
Annually[2]	Arsenic	ug/L	Grab
Annually[2]	Barium	ug/L	Grab
Annually[2]	Aluminum	ug/L	Grab
Annually[2]	Total Organic Carbon	mg/L	Grab
Annually[2]	Tannin & Lignin	mg/L	Grab

Frequency	Constituent/Parameter	Units	Sample Type
Annually[2]	General Minerals[3]	various	Grab

1. Samples to be collected in January, April, July, and October.
2. Samples to be collected in July.
3. General mineral analysis shall include, alkalinity (as CaCO3), bicarbonate (as CaCO3), boron, calcium, carbonate (CaCO3), chloride, hardness, iron, magnesium, manganese, nitrate as nitrogen, phosphate, potassium, sodium, sulfate, and TDS. Samples collected for metals shall be filtered with a 0.45 micron filter prior to preservation, digestion, and analysis.

LAND SPREADING AREA MONITORING

The Discharger shall conduct an annual inspection of the land spreading area prior to the start of the wet season to check the berms and all runoff control features as well as all pumps and meters to ensure proper operation and containment. The results of the annual inspection shall be included as part of the third quarter monitoring report.

In addition, the Discharger shall perform the following routine monitoring of the discharge to the land spreading area. The data shall be collected and presented in tabular format and shall include the following:

Frequency	Constituent/Parameter	Units	Sample Type
Daily[1]	Wastewater flow	gallons	Metered
Daily[1]	Wastewater loading	inches/day	Calculated
Daily[1]	Precipitation	inches	Rain gage[2]
Monthly	Total hydraulic loading[3]	inches/acre-month	Calculated

1. When discharging and while wastewater is applied to the spreading area.
2. National Weather Service or CIMIS data from the nearest weather station is acceptable.
3. Combined loading from wastewater, and precipitation.

The Discharger shall also inspect the land spreading area monthly throughout the wet season (October through April) and write visual observations in a bound logbook. Evidence of erosion, field saturation, runoff, or the presence of nuisance conditions (i.e., burrows, odors, ponding, etc.) shall be noted in the logs and included as part of the quarterly monitoring reports.

GROUNDWATER MONITORING

After measuring water levels and prior to collecting samples, each monitoring well shall be adequately purged to remove water that has been standing within the well screen and casing that may not be chemically representative of formation water. Depending on the hydraulic conductivity of the geologic setting, the volume removed during purging is typically from 3 to 5 well casing volumes.

The Discharger shall monitor the wells around the Upper and Lower Ponds W-9 and W-10 as follows:

Frequency	Constituent/Parameter	Units	Sample Type
Monthly	Depth-to-Water	Feet[1]	Measured
Monthly	Groundwater Elevation[2]	Feet[1]	Calculated
Monthly	Separation Distance[3]	Feet	Calculated
Semi-Annually[4]	pH	pH units	Grab
Semi-Annually[4]	EC	umhos/cm	Grab
Semi-Annually[4]	Chemical Oxygen Demand (COD)	mg/L	Grab
Semi-Annually[4]	Total Organic Carbon	mg/L	Grab
Semi-Annually[4]	Tannin & Lignin	mg/L	Grab
Semi-Annually[4]	Arsenic	ug/L	Grab
Semi-Annually[4]	Barium	ug/L	Grab
Semi-Annually[4]	General Minerals[5]	Various	Grab

1. To the nearest hundredth foot.
2. Groundwater elevation shall be calculated based on depth-to-water measurements from a surveyed measuring point.
3. Separation distance beneath each pond shall be determined by subtracting the groundwater elevation beneath the pond from the invert elevation of each pond (Upper and Lower Pond).
4. Samples to be collected in April and October.
5. General mineral analysis shall include, alkalinity (as CaCO3), bicarbonate (as CaCO3), boron, calcium, carbonate (CaCO3), chloride, hardness, iron, magnesium, manganese, nitrate as nitrogen, potassium, sodium, sulfate, and TDS. Samples collected for metals shall be filtered with a 0.45 micron filter prior to preservation, digestion, and analysis.

The Discharger shall monitor the additional monitoring wells in its monitoring well network GW-1 through GW-5 and any subsequent additional monitoring wells as follows:

Frequency	Constituent/Parameter	Units	Sample Type
Semi-Annually[3]	Depth-to-Water	Feet[1]	Measured
Semi-Annually[3]	Groundwater Elevation[2]	Feet	Calculated
Semi-Annually[3]	pH	pH units	Grab
Semi-Annually[3]	EC	umhos/cm	Grab
Semi-Annually[3]	Chemical Oxygen Demand (COD)	mg/L	Grab
Semi-Annually[3]	Total Organic Carbon	mg/L	Grab
Semi-Annually[3]	Tannin & Lignin	mg/L	Grab
Semi-Annually[3]	Arsenic	ug/L	Grab
Semi-Annually[3]	Barium	ug/L	Grab
Semi-Annually[3]	General Minerals[4]	Various	Grab

1. To the nearest hundredth foot.
2. Groundwater elevation shall be calculated based on depth-to-water measurements from a surveyed measuring point.
3. Samples to be collected in April and October.
4. General mineral analysis shall include, alkalinity (as CaCO3), bicarbonate (as CaCO3), boron, calcium, carbonate (CaCO3), chloride, hardness, iron, magnesium, manganese, nitrate as nitrogen, potassium, sodium, sulfate, and TDS. Samples collected for metals shall be filtered with a 0.45 micron filter prior to preservation, digestion, and analysis.

The Discharger shall maintain its groundwater monitoring well network. If a groundwater monitoring well(s) is dry for more than four consecutive sampling events, the Discharger shall submit a work plan and proposed time schedule to replace the well(s). The well(s) shall be replaced following Executive Officer approval of the work plan and time schedule.

REPORTING

All monitoring results shall be reported in **Quarterly Monitoring Reports,** which are due by the first day of the second month after the calendar quarter. Therefore, monitoring reports are due as follows:

First Quarter Monitoring Report:	**1 May**
Second Quarter Monitoring Report:	**1 August**
Third Quarter Monitoring Report:	**1 November**
Fourth Quarter Monitoring Report:	**1 February**.

The Central Valley Water Board has gone to a Paperless Office System. All regulatory documents, submissions, materials, data, monitoring reports, and correspondence should be converted to a searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50MB should be emailed to: centralvalleyfresno@waterboards.ca.gov. Documents that are 50MB or larger should be transferred to a disk and mailed to the appropriate regional water board office, in this case 1685 E Street, Fresno, CA, 93706.

To ensure that your submittals are routed to the appropriate staff, the following information block should be included in any email used to transmit documents to this office:

Program: Non-15, WDID: 5C552019001, Facility Name: Chinese Camp Mill, Order: R5-2016-XXXX

In reporting 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 that illustrates clearly, whether the Discharger complies with waste discharge requirements. In addition to the details specified in Standard Provision C.3, monitoring information shall include the method detection limit (MDL) and the Reporting limit (RL) or practical quantitation limit (PQL). If the regulatory limit for a given constituent is less than the RL (or PQL), then any analytical results for that constituent that are below the RL (or PQL) but above the MDL shall be reported and flagged as estimated.

Laboratory analysis reports do not need to be included in the monitoring reports; however, the laboratory reports must be retained for a minimum of three years in accordance with Standard Provision C.3.

All monitoring reports shall comply with the signatory requirements in Standard Provision B.3. For a Discharger conducting any of its own analyses, reports must also be signed and certified by the chief of the laboratory.

All monitoring reports that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code sections 6735, 7835, and 7835.1.

In the future, the State or Central Valley Water Board may notify the Discharger to electronically submit and upload monitoring reports using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site http://www.waterboards.ca.gov/ciwqs/index.html or similar system. Electronic submittal to CIWQS, when implemented, will meet the requirements of our Paperless Office System.

A. All Quarterly Monitoring Reports shall include the following:

Pond Monitoring Reporting:

1. Tabulated results of pond monitoring specified on pages 2 and 3.

Surface Water Reporting

1. The results of the surface water monitoring of Six-Bit Gulch Creek specified on page 3. If no water is flowing in the creek, the creek shall be reported as dry for that month.

Supply Water Reporting

1. The results of the supply water monitoring specified on pages 3 and 4. If multiple sources are used the Discharger, shall calculate the flow-weighted average concentrations for the specified constituents. Results must include supporting calculations, if required.
2. Cumulative volume of water added to the ponds for the log deck sprinkler system.

Land Spreading Area Reporting:

1. The results of monitoring and loading calculations specified on page 4.
2. Calculation of the hydraulic load for wastewater and precipitation to the spreading area in gallons and/or acre-feet.
3. A summary of the notations made in the observation log book during each quarter. The entire contents of the log do not need to be submitted.
4. For the third quarter monitoring report, provide the results of the annual pre-wet season inspection of the land spreading area. The report shall include details and a time schedule to implement any repairs, if required.

Groundwater Reporting:

1. The result of groundwater monitoring specified on pages 4 and 5. If there is insufficient water in the well(s) for sampling, the monitoring well(s) shall be reported as dry for that sampling event.
2. Table showing groundwater depth, elevation, and separation distances for the monitoring wells around the ponds for the five previous years, up through the present quarter.
3. A groundwater contour map based on groundwater elevations for the most recent sampling event. The map shall show the gradient and direction of groundwater flow.

The map shall also include locations of all monitoring wells and wastewater storage and application areas.

B. Fourth Quarter Monitoring Reports, in addition to the above, shall include the following:

Facility Information:

1. The names and telephone numbers of persons to contact regarding the discharge for emergency and routine situations.
2. A statement certifying when the flow meter and other monitoring instruments and devices were last calibrated, including identification of who performed the calibrations (Standard Provision C.4).
3. A summary of any changes in processing that might affect waste characterization and/or discharge flow rates.
4. A summary and discussion of the compliance record for the reporting period. If violations have occurred, the report shall also discuss the corrective actions taken and planned to bring the discharge into full compliance with WDRs Order R5-2016-XXXX.

Solids Reporting

1. Annual production totals for solids (excluding trash and recyclables) including ash, shavings, saw dust, and sludge removed from the bottom of the ponds in dry tons or cubic yards.
2. A description of disposal methods, including the following information related to the disposal methods used. If more than one method is used, include the percentage disposed of by each method.

    a. For landfill disposal, include: the name and location of the landfill, and the Order number of WDRs that regulate it.

    b. For land application, include: the location of the site (field identification), and the Order number of any WDRs that regulate it.

    c. For incineration, include: the name and location of the site where incineration occurs, the Order number of WDRs that regulate the site, the disposal method of ash, and the name and location of the facility receiving ash (if applicable).

    d. For composting, include: the location of the site, and the Order number of any WDRs that regulate it.

    e. For animal feed, include: the location of the site, and the Order number of any WDRs that regulate it.

The Discharger shall implement the above monitoring program on the first day of the quarter following adoption of this Order.

Ordered by: _____

PAMELA C. CREEDON, Executive Officer

_____

(Date)

GLOSSARY

BOD_5	Five-day biochemical oxygen demand
COD	Chemical oxygen demand
DO	Dissolved oxygen
EC	Electrical conductivity at 25° C
FDS	Fixed dissolved solids
NTU	Nephelometric turbidity unit
TKN	Total Kjeldahl nitrogen
TDS	Total dissolved solids
TSS	Total suspended solids
Continuous	The specified parameter shall be measured by a meter continuously.
24-Hour Composite	Unless otherwise specified or approved, samples shall be a flow-proportioned composite consisting of at least eight aliquots.
Daily	Samples shall be collected every day.
Twice Weekly	Samples shall be collected at least twice per week on non-consecutive days.
Weekly	Samples shall be collected at least once per week.
Twice Monthly	Samples shall be collected at least twice per month during non-consecutive weeks.
Monthly	Samples shall be collected at least once per month.
Bimonthly	Samples shall be collected at least once every two months (i.e., six times per year) during non-consecutive months
Quarterly	Samples shall be collected at least once per calendar quarter. Unless otherwise specified or approved, samples shall be collected in January, April, July, and October.
Semiannually	Samples shall be collected at least once every six months (i.e., two times per year). Unless otherwise specified or approved, samples shall be collected in April and October.
Annually	Samples shall be collected at least once per year. Unless otherwise specified or approved, samples shall be collected in July.
mg/L	Milligrams per liter
mL/L	Milliliters [of solids] per liter
µg/L	Micrograms per liter
µmhos/cm	Micromhos per centimeter
mgd	Million gallons per day
MPN/100 mL	Most probable number [of organisms] per 100 milliliters
General Minerals	Analysis for General Minerals shall include at least the following:

Alkalinity (as CaCo3)	Carbonate (as CaCO3)	Magnesium	Potassium
Bicarbonate (as CaCO3)	Chloride	Manganese	Sodium
Boron	Hardness	Nitrate	Sulfate
Calcium	Iron	Phosphate	TDS

General Minerals analyses shall be accompanied by documentation of cation/anion balance.