

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION**

MONITORING AND REPORTING PROGRAM NO. 00-057 (REVISION NO. 1)
FOR
CITY OF NEEDLES, OWNER/OPERATOR
MUNICIPAL WASTEWATER TREATMENT PLANT
Needles - San Bernardino County

Location of Discharge: Section 33, T9N, R22W, SBB&M

MONITORING

1. The collection, container selection, preservation, holding times, chain of custody, and chemical analysis of all samples shall be in accordance with U. S. Environmental Protection Agency approved procedures and methods given in 40 CFR 136. All analyses shall be conducted by a laboratory certified by the State Department of Health Services to perform the required analyses.
2. Two Points of Compliance with the discharge limitations have been established: first, at the end of the treatment and disinfection process but before discharge into the percolation pond; and second, hydraulically upgradient and downgradient monitoring wells located in accordance with the requirements in Provision No. 9.a. and b. of this Board Order. The secondary effluent resulting from the treatment in SBRs, equalization basin, and disinfection in the chlorine contact basin will be sampled before its discharge into the percolation pond. Groundwater samples shall be collected and analyzed, and their results shall be evaluated and reported in accordance with the sampling and analysis plan required under Provision No. 9. b. and Provisions 11. a. through f. of this Board Order.
3. If the facility is not in operation, or there is no discharge during a required reporting period, the discharger shall forward a letter to the Regional Board indicating that there has been no activity during the required reporting period.

INFLUENT MONITORING

| <u>Constituent</u> | <u>Unit</u> | <u>Type of Sample</u> | <u>Sampling Frequency</u> |
|---------------------------------|-------------------|-----------------------|---------------------------|
| Flow to SBRs | MGD ¹ | Metered | Daily ² |
| Biochemical Oxygen Demand (BOD) | mg/L ³ | 24-Hour Composite | Weekly |
| Total Suspended Solids | mg/L | 24-Hour Composite | Weekly |

¹ MGD - Million Gallons-per-Day

² All daily samples shall be collected during the peak flow once per business day, except flow, which shall be reported every day of the week.

³ mg/L - Milligrams-per-Liter

EFFLUENT MONITORING

A sampling station shall be established at a point after the final secondary treatment process and after disinfection by chlorination, but before discharge into the percolation pond, where representative samples of the effluent can be obtained. Wastewater discharged to the percolation pond shall be monitored for the following constituents:

| <u>Constituent</u> | <u>Unit</u> | <u>Type of Sample</u> | <u>Sampling Frequency</u> |
|---|-------------------------|-----------------------|---------------------------|
| Flow to Percolation Pond | MGD | Metered | Daily |
| BOD | mg/L | 24-Hr. Composite | Weekly |
| Suspended Solids | mg/L | 24-Hr. Composite | Weekly |
| Fecal Coliform | MPN/100 ml ⁴ | Grab at Peak Flow | 5 samples per month |
| Dissolved Oxygen | mg/L | Grab at Peak Flow | Daily |
| Hydrogen Ion (pH) | mg/L | Grab at Peak Flow | Daily |
| Total Dissolved Solids | mg/L | 24-Hr. Composite | Monthly |
| Total Phosphate | mg/L | 24-Hr. Composite | Monthly |
| Ammonia as Nitrogen | mg/L | 24-Hr. Composite | Monthly |
| Total Nitrogen | mg/L | 24-Hr. Composite | Monthly |
| Nitrate as Nitrogen | mg/L | 24-Hr. Composite | Monthly |
| Fluoride Monthly | mg/L | 24 Hr. | Composite |
| Sulfate | mg/L | 24-Hr. Composite | Monthly |
| Chloride | mg/L | 24-Hr. Composite | Monthly |
| Volatile Organic Compounds (EPA Methods 624/625) | µg/L ⁵ | Grab | Annually |

⁴ MPN/100ml - Most Probable Number per 100 milliliters

⁵ µg/L - micrograms-per-Liter

GROUND WATER MONITORING

1. Hydraulically upgradient and downgradient monitoring wells located, designed, constructed and completed in accordance with the requirements specified of Provision 9. a. and b. of this Board Order will be measured for depth to groundwater below surveyed top of their casings (for determination of groundwater elevations), purged at least three bore hole volumes, and then sampled quarterly for potential groundwater pollutants. Groundwater shall be sampled from the uppermost 20 feet of the shallow aquifer. Groundwater samples shall be collected and analyzed, and their results shall be evaluated and reported in accordance with the sampling and analysis plan required under Provision 9. b. and Provision 11. a. through f. of this Board Order.
2. The groundwater samples shall be analyzed for: chloride, fluoride, sulfate, nitrate as total nitrogen, E. Coli, Enterococci; pH, specific conductance, turbidity, total dissolved solids; volatile organic compounds, and pesticides. Turbidity, pH, and specific conductance can be measured onsite with an accurate and properly calibrated portable instrument.
3. Concentration of pollutants in the groundwater samples collected from hydraulically downgradient monitoring wells shall not exceed the background concentrations in the hydraulically upgradient monitoring wells, and exceedance of each pollutant in each reporting period shall be considered a violation of this Board Order.
4. Monitoring well locations, and top of the casing elevations in each well shall be surveyed, and shall be used to prepare groundwater elevation contour maps showing direction of flow and hydraulic gradient.
5. Groundwater samples shall be collected from the uppermost 20 feet of the shallow aquifer from the monitoring well, and analyzed for the following constituents:

| <u>Constituent</u> | <u>Unit</u> | <u>Type of Sample</u> | <u>Sampling Frequency</u> |
|--|-------------|-----------------------|---------------------------|
| Total Dissolved Solids | mg/L | Grab | Quarterly |
| E. Coli | MPN/100mL | Grab | Quarterly |
| Enterococci | MPN/100mL | Grab | Quarterly |
| Nitrate as N | mg/L | Grab | Quarterly |
| Sulfate | mg/L | Grab | Quarterly |
| Chloride | mg/L | Grab | Quarterly |
| Fluoride | mg/L | Grab | Quarterly |
| Volatile Organic Compounds (EPA 624/625) | µg/L | Grab | Annually |
| Pesticides (EPA 608) | µg/L | Grab | Annually |

| <u>Constituent</u> | <u>Unit</u> | <u>Type of Sample</u> | <u>Sampling Frequency</u> |
|--------------------|-------------|-----------------------|---------------------------|
|--------------------|-------------|-----------------------|---------------------------|

| | | | |
|--|---------------------|-------------|-----------|
| Ground Water Elevation Feet (MSL ⁶) in approved Monitoring wells | ----- | Measurement | Quarterly |
| Hydrogen Ion (pH) | ----- | Grab | Quarterly |
| Specific Conductance | μS /cm ⁷ | Grab | Quarterly |
| Turbidity | NTUs ⁸ | Grab | Quarterly |

WATER SUPPLY MONITORING

| <u>Constituent</u> | <u>Unit</u> | <u>Type of Sample</u> | <u>Sampling Frequency</u> |
|------------------------|-------------|-----------------------|---------------------------|
| Total Dissolved Solids | mg/L | Composite | Monthly |
| Chloride | mg/L | Composite | Quarterly |
| Sulfate | mg/L | Composite | Quarterly |

Existing water supply data obtained to satisfy State Department of Health Services requirements may be used to fulfill these requirements.

OPERATION AND MAINTENANCE

An annual report shall be submitted assessing the operational condition of each unit process. The report shall also contain a log of all major repairs and maintenance activities at the treatment plant.

SLUDGE MONITORING

The discharger shall report the quantity, location, and method of disposal of all sludge and similar solid materials being produced at the wastewater treatment plant facility.

Sludge shall be sampled and analyzed for the following constituents:

| <u>Constituent</u> | <u>Unit</u> | <u>Type of Sample</u> | <u>Sampling Frequency</u> |
|--------------------|--------------------|-----------------------|---------------------------|
| Arsenic | mg/kg ⁹ | Composite | Annually |
| Cadmium | mg/kg | Composite | Annually |
| <u>Constituent</u> | <u>Unit</u> | <u>Type of Sample</u> | <u>Sampling Frequency</u> |
| Chromium | mg/kg | Composite | Annually |

⁶ Mean Sea Level

⁷ μS /cm - Microsiemens per centimeter

⁸ NTUs - Nephelometric Turbidity Units

⁹ mg/kg - Milligrams-per-kilogram

| | | | |
|----------------|----------|-----------|----------|
| Copper | mg/kg | Composite | Annually |
| Lead | mg/kg | Composite | Annually |
| Mercury | mg/kg | Composite | Annually |
| Molybdenum | mg/kg | Composite | Annually |
| Nickel | mg/kg | Composite | Annually |
| Selenium | mg/kg | Composite | Annually |
| Zinc | mg/kg | Composite | Annually |
| Fecal Coliform | MPN/gram | Composite | Annually |

PRETREATMENT REPORT

In the event that the discharger is required to implement a pretreatment program then the discharger shall submit reports as required in accordance with Section F.

REPORTING

1. The discharger shall arrange the data in tabular form so that the specified information is readily discernible. The data should be summarized in such a manner as to clearly illustrate whether the facility is operating in compliance with waste discharge requirements.
2. Records of monitoring information shall include.
 - a. A map showing surveyed locations of groundwater monitoring wells, all groundwater elevations measured during a 2-hour period of the same day and posted at appropriate well locations, groundwater elevation contours, map scale, north arrow, legend, groundwater flow direction and gradient;
 - b. A table containing date and time of measurement of depth to groundwater, top of the casing elevation, depth to groundwater, total depth and screen interval of the monitoring well; volume of groundwater purged, readings of pH, specific conductance, and turbidity recorded during purging until these parameters stabilized within 10 percent of the previous reading;
 - c. Chain of custody form(s) containing the following information: sample number and its location; date and time of sampling, sampler's name; sample type, matrix, container and preservative used, analytical methods to be used; date and time of receipt of samples by the representative of the certified laboratory;
 - d. Date analyses were performed, and the individual(s) who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses. Analytical results of the pollutants exceeding the background concentrations will be highlighted, reasons for exceedance discussed, and the corrective actions taken to prevent exceedance in the following reporting periods shall be included in the reports submitted to this Board.
3. Monitoring reports shall be certified under penalty of perjury to be true and correct, and shall contain the required information at the frequency designated in this monitoring report.

4. Each report shall contain the following statement:

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

5. A duly authorized representative of the discharger may sign the documents if:
 - a. The authorization is made in writing by the person described above;
 - b. The authorization specified an individual or person having responsibility for the overall operation of the regulated disposal system; and
 - c. The written authorization is submitted to the Regional Board's Executive Officer.
6. Reporting of any failure in the waste disposal system shall be as described as in Provision No. 8 to the Regional Board Office and to the Office of Emergency Services.
7. Daily, weekly and monthly monitoring reports shall be submitted to the Regional Board by the 15th day of the following month. Quarterly monitoring reports shall be submitted by January 15, April 15, July 15, and October 15 of each year. Annual reports shall be submitted by January 15 of each year.
8. Submit monitoring reports to:

California Regional Water Quality Control Board
Colorado River Basin Region
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260

ORDERED BY: original signed by/
Executive Officer

September 19, 2000
Date