

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

REVISED MONITORING AND REPORTING PROGRAM NO. 5-01-148
MONITORING AND CORRECTIVE ACTION
NEENAH PAPER FR, LLC
NEENAH PAPER FR MILL
SAN JOAQUIN COUNTY

Monitoring data shows salt impacts to groundwater associated with past effluent discharges from the mill at this site. Prior to purchase of the property by the Discharger (Neenah Paper FR LLC) in 2007, the prior owner/operator implemented various corrective action measures to improve the quality of the effluent discharge to land, including process changes and the use of lower salinity supply water. Since new ownership in 2007, the mill has been inactive, but continues to receive dilute brine discharges from the neighboring cogeneration facility.

This monitoring program is intended to monitor the effectiveness of the above effluent dilution measures in improving groundwater quality at the site and to assess the need for any additional corrective action measures that may be warranted under California Code of Regulations, Title 27. Based on the data collected from this monitoring program, a final determination will be made on appropriate clean up alternatives for this site.

A. WATER SUPPLY MONITORING

A sampling station shall be established where a representative sample of the process water supply can be obtained. Water supply monitoring should include all operable process supply wells in use. Wells no longer in use shall be properly abandoned. Until properly abandoned with the approval of the Regional Board, all process wells are subject to the monitoring requirements contained herewith.

Water supply monitoring shall be conducted as follows:

<u>Constituents</u>	<u>Unit</u>	<u>Sampling Frequency</u>
Standard Minerals	mg/l	Annually
Electrical Conductivity @ 25°C	µmhos/cm	Annually
Total Dissolved Solids (TDS)	mg/l	Annually

B. PLANT EFFLUENT MONITORING

Plant effluent samples shall be collected prior to being discharged into the clarifier. Plant effluent samples should be representative of the volume and nature of the discharge prior to treatment. Samples collected from the mill basement sump will be considered adequately composited. Time of collection of a grab sample shall be recorded. Plant effluent monitoring shall be conducted as follows:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Flow	mgd	Continuous	Daily
TDS	mg/L	Composite	Weekly
Specific Conductivity	µmhos/cm	Composite	Weekly
pH	---	Composite	Weekly
Nitrates as N	mg/L	Grab	Monthly
Fixed Residue (Volatile)	mg/L	Grab	Monthly
Sulfate	mg/L	Grab	Monthly
Standard Minerals	mg/L	Grab	Annually
20°C BOD ₅	mg/L	Grab	Annually
Suspended Matter	mg/L	Grab	Annually
Settleable Matter	mg/L	Grab	Annually

C. SLUDGE MONITORING

A composite sample of sludge shall be collected annually in accordance with EPA's *POTW Sludge Sampling and Analysis Guidance* document, August 1989, and tested for the following metals and organics.

Metals: Cadmium, Chromium, Copper, Lead, Nickel, and Zinc.

Organics: Acetone, 2-Butanone

Sampling records shall be retained for a minimum of five years. A log shall be kept of sludge quantities, handling and disposal activities. The frequency of entries is discretionary; however, the log should be complete enough to serve as a basis for part of the annual report.

D. POND MONITORING

Aeration Stabilization Basin No. 2 samples shall be collected downstream from the last connection through which waste can be admitted into the basin. Grab samples shall be collected in a convenient location at least 200 feet from the influent structure. Samples must be representative of the volume and nature of the discharge from Aeration Stabilization Basin No. 1. Time of grab sample collection shall be recorded.

If a discharge occurs in one of the four overflow ponds, then the time discharge began to the overflow pond(s) must be noted. The following shall constitute the pond monitoring program:

<u>Constituent</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sampling Frequency</u>
pH	pH Units	Grab	Weekly
Specific Conductivity	µmhos/cm	Grab	Weekly
TDS	mg/l	Grab	Weekly
Freeboard	feet	- -	Monthly
Standard Minerals	mg/l	Grab	Annually

The exposed portion of the basin shall be inspected monthly. Monthly inspection reports shall be included in each semiannual monitoring report and shall include a description of the condition of the wastewater management facilities and any changes in appearance from the previous month.

E. GROUNDWATER MONITORING

1. Groundwater Elevation

The water level in each monitoring well shall be measured **quarterly** consistent with Title 27, Section 20415(e)(15). Data from water level measurements shall be used to construct groundwater contour maps showing the direction of groundwater flow in the uppermost aquifer beneath the site. The elevation contour maps shall be constructed using feet above mean sea level. The groundwater gradient shall also be computed.

2. Corrective Action Monitoring

The following shall constitute the groundwater corrective action monitoring program:

a. Semiannual Sampling

Monitoring Points: Wells OBs-1 through -28, TH-1, TH-2, TH-4 through TH-11, M-19-C, and PW-4.

Constituents: TDS, chloride, sulfate, nitrate, and sodium.

b. Annual Sampling

Monitoring Points: Wells OBs-1 through -28, TH-1, TH-2, TH-4 through TH-11, M-10-C, M-11-C, and PW-4, PW-5, PW-6, PW-7, and PW-8.

Constituents: TDS, electrical conductivity, pH, chloride, sulfate, nitrate, sodium, calcium, magnesium, potassium, bicarbonate, and carbonate.

All wells shall be field monitored for pH, Electrical Conductivity, and turbidity during the above sampling events. For wells for which annual and semiannual monitoring are specified for the same constituent, annual monitoring may be conducted as one of the semiannual events. Laboratory concentrations for inorganic parameters shall be reported in milligrams per liter.

3. Future Wells

The Discharger may propose modifications in the monitoring system for approval. Such modifications may include removal of monitoring wells from the system and replacement with existing wells or new wells. Prior to construction, plans and specifications for additional groundwater monitoring wells shall be submitted to Board staff for review and approval. Monitoring wells proposed for permanent deletion from the system shall be properly destroyed in accordance with the requirements of the San Joaquin County Public Health Services and the State of California Department of Water Resources.

F. REPORTING

The Discharger shall report monitoring data and information as required under this Order.

1. Semiannual Reports

Monitoring reports shall be submitted **semiannually**. Each semiannual report shall include the following information:

- a. A compliance evaluation summary for the monitoring period as specified in the SPRR (Requirement 2, Reports to be Filed with the Board, REPORTING REQUIREMENTS).
- b. A tabular description of the wells (e.g., well name, top casing elevation, well depth, screened interval, aquifer or zone).
- c. The results of groundwater elevation monitoring, including a summary table showing the groundwater elevation measured in each well and other information required in Section E.1 above and the SPRR.
- d. Tabular summaries of corrective action monitoring data for the monitoring period showing sampling date, well, constituents, concentrations, units, and concentration limits. The table shall clearly show whether new monitoring data exceedances occurred during the monitoring period (i.e. highlight exceedances).
- e. A narrative discussion of the results of correction action monitoring for the monitoring period.
- f. Field and laboratory tests sheets.
- g. An electronic copy of the semiannual report in PDF format on compact disk (CD).

The results of any monitoring done more frequently than required at the locations specified in this Order shall be reported to the Board.

2. Annual Monitoring Summary Report

An Annual Monitoring Summary Report summarizing monitoring results for the prior year shall also be prepared and submitted in accordance with this Order, including the MRP and SPRR (Requirement 4, *Reports to be Filed with the*

Board, REPORTING REQUIREMENTS). The report may be included in the Second Semiannual Report for each year, but shall include the following:

- a. Tabular and graphical summaries of the results of the prior year, including, but not necessarily limited to:
 - i. Time series plots for each constituent for which there are three or more data points (including non-detect values) in each well.
 - ii. Contaminant contour maps of TDS and specific conductance for each semester during year.
 - iii. Trend evaluation for each constituent for which there are four or more data points above the PQL, using appropriate statistical and/or graphical methods (e.g., best fit, Mann-Kendall, Sen's Slope).
- b. An evaluation of the water chemistry in representative wells by an appropriate graphical method (e.g., Piper diagram, Trilinear plot, Stiff diagram).
- c. A copy of the Sampling and Analysis Plan per the SPRR (Requirement 1, Provisions for Monitoring).
- d. Description of corrective action methods and summary of progress toward achieving concentration limits (i.e., cleanup goals) and compliance with the water quality protection standard.
- e. A discussion of overall compliance with the WDRs, including, but not necessarily limited to, an evaluation of the effectiveness of corrective action and need for additional measures and/or monitoring wells.
- f. Electronic copies of the following on CD:
 - i. The Annual Report in PDF format.
 - ii. Historical groundwater corrective action monitoring data for the site in a tabular format necessary for statistical analysis (e.g., Excel).

At least the previous 10 years of data shall be provided, or for as long as monitoring has been conducted at a given well if less than 10 years. Each table shall be organized such as specified in F.1.d to clearly show historical concentrations at each well.
 - iii. Historical groundwater elevation monitoring data for the site in either of the formats specified in i or ii above. (If in PDF format, the data shall be included as part of the monitoring report submitted under C.1.a.i above).

Reports that do not comply with the above-required format will be **REJECTED** and the Discharger shall be deemed to be in noncompliance with the waste discharge requirements.

3. **Reporting Schedule**

The semiannual and annual reports shall be submitted to the Board in accordance with the following schedule for the calendar period in which samples were taken or observations made:

<u>Report</u>	<u>End of Reporting Period</u>	<u>Report Due By</u>
First Semiannual	30 June	31 July
Second Semiannual	31 December	31 January
Annual Report	31 December	31 January

The Discharger shall implement the above monitoring program on the effective date of this Program. The transmittal letter accompanying monitoring reports submitted under this Order shall, as required under the SPRR (*Provision 5, General Requirements, REPORTING REQUIREMENTS*), contain a statement by the discharger, or the discharger's authorized agent, under penalty of perjury, that to the best of the signer's knowledge the report is true, accurate and complete.

Ordered by: Pamela C Creedon
PAMELA C. CREEDON, Executive Officer
September 14, 2009
(Date)

Attachments
JDM: 10 September 2009