

California Regional Water Quality Control Board
North Coast Region

CEASE AND DESIST ORDER NO. R1-2010-0039

NPDES PERMIT NO. CA0005894
ID NO. 1B77005OHUM

REQUIRING FRESHWATER TISSUE COMPANY TO CEASE AND DESIST FROM
DISCHARGING OR THREATENING TO DISCHARGE EFFLUENT IN VIOLATION
OF WASTE DISCHARGE REQUIREMENTS ORDER NO. R1-2010-0033

Humboldt County

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

1. Freshwater Tissue Company (hereinafter Discharger) is the owner and operator of the Samoa Pulp Mill (hereinafter Facility).
2. On January 27, 2010, the Discharger filed a report of waste discharge and submitted an application for Waste Discharge Requirements (WDRs) and a National Pollutant Discharge Elimination System (NPDES) permit for the discharge of process wastewater associated with the production of chlorine-free bleached and unbleached kraft pulp. The application was deemed complete on March 26, 2010.
3. The Facility has a design flow of 20.0 million gallons per day of wastewater created during the pulp production process, the energy and chemical recovery processes, and the raw water treatment process. The discharge will occur to the Pacific Ocean, a water of the United States, through an outfall that is approximately 8,200 feet long and provides an initial dilution rate of 115:1.
4. Wastewaters generated from the facility include countercurrent pulp wash-water, black-liquor evaporator condensates, blow-down from the recovery boiler, spent bleaching solutions, and sludge from the raw water treatment plant clarifiers. Wastewaters also include wastewater from maintenance activities during pulp production, scheduled maintenance shutdowns, and unscheduled shutdown periods. Other authorized discharges include fresh water discharged through the outfall to maintain flow in the outfall and storm water from the pulp mill site. The effluent pump station and discharge outfall system are designed to convey up to 20 million gallons per day, on average.
5. Raw surface water used in the pulp making process is drawn directly from the Mad River and treated in an onsite water treatment plant to remove naturally-occurring mud and silt entrained in the river water prior to use in the mill. The water treatment plant consists of conventional circular clarifiers that settle the mud and silt with the aid of proprietary additives that improve solids removal. Solids removed in the water treatment plant clarifiers are conveyed to the outfall pipe where they are combined with process wastewaters and discharged to the ocean.
6. The discharge was previously regulated by WDR Order R1-2004-0047 for Evergreen Pulp, Inc., which was terminated on March 12, 2009. A new WDR and

NPDES permit for Freshwater Tissue Company, WDR Order No. R1-2010-0033 (NPDES Permit No. CA0005894), becomes effective on July 15, 2010.

7. Section 301(b) of the Clean Water Act (CWA) and implementing USEPA permit regulations at section 122.44, title 40 of the Code of Federal Regulations (CFR) require that NPDES permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. WDR Order No. R1-2010-0033 includes minimum federal technology-based requirements based on Effluent Limitations Guidelines (ELGs) and Standards for the Pulp, Paper, and Paperboard Point Source Category contained in 40 CFR 430.
8. WDR Order No. R1-2010-0033 also contains technology-based effluent limitations for grease and oil, settleable solids, turbidity, and pH for the discharge of solids removed from the water treatment plant and discharged to the ocean, as required in Table A of the Water Quality Control Plan for Ocean Waters of California, California Ocean Plan (Ocean Plan)¹. WDR Order No. R1-2010-0033 does not include a requirement to comply with the suspended solids standard in the Ocean Plan which requires dischargers to remove 75 percent of solids from the influent stream before discharging to the ocean. The Samoa Pulp Mill, pursuant to State Water Resources Control Board Resolution 87-103, is granted an exception to this Ocean Plan standard. The previous permit did not contain any effluent limitations required by the Ocean Plan.
9. Based on an analysis of effluent monitoring data from 2005 through 2008, the discharge from the Facility cannot comply with:
 - final effluent limitations in WDR Order No. R1-2010-0033 for five-day biochemical oxygen demand (BOD₅) in section A.1 during production of bleached pulp;
 - effluent limitations for BOD₅ and total suspended solids (TSS) in section A.2 of the Permit during production of unbleached pulp; and
 - effluent limitations for settleable solids and turbidity in section A.3 of the Permit for the discharge of solids removed from the water treatment plant.
10. Requirements in Order No. R1-2010-0033 that are threatened to be violated are:

A. Effluent Limitations – Discharge Point 001

1. Final Effluent Limitations during Bleached Pulp Production – Discharge Point 001

During manufacture of bleached pulp, the Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001, with compliance measured at Monitoring Location EFF-001 as described in the attached MRP:

¹ Table A effluent limitations apply only to publicly owned treatment works and industrial discharges for which Effluent Limitation Guidelines have not been established pursuant to sections 301, 302, 304, or 306 of the Federal Clean Water Act. (California Ocean Plan)

Table 7. Effluent Limitations – Bleached Pulp

Parameter	Units	Effluent Limitations					
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Six-Month Median
TSS	lbs/day	22,960		42,560			
BOD ₅	lbs/day	11,270		21,630			

2. Final Effluent Limitations during Unbleached Pulp Production – Discharge Point 001

During manufacture of unbleached pulp, the Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001 with compliance measured at Monitoring Location EFF-001 as described in the attached MRP.

Table 8. Effluent Limitations – Unbleached Pulp

Parameter	Units	Effluent Limitations					
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Six-Month Median
TSS	lbs/day	8,400		16,800			
BOD ₅	lbs/day	3,920		7,840			

3. Final Effluent Limitations for the Raw Water Discharge from the Water Treatment Plant– Discharge Point 001

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001 with compliance measured at Monitoring Location EFF-002 as described in the attached MRP.

Table 9. Final Effluent Limitations – Water Treatment Plant

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Maximum	Six-Month Median
Settleable Solids	mL/L-hr	1.0	1.5	3.0	---	---
Turbidity	NTU	75	100	225	---	---

11. Section 13301 of the California Water Code states “When a regional board finds that a discharge of waste is taking place, or threatening to take place, in violation of requirements or discharge prohibitions prescribed by the regional board or the state board, the board may issue an order to cease and desist and direct that those persons not complying with the requirements or discharge prohibitions (a) comply forthwith, (b) comply in accordance with a time schedule set by the board, or (c) in the event of a threatened violation, take appropriate remedial or preventative action.”

12. On March 22, 2010, the Discharger submitted a request for a forty-month compliance schedule to give the Discharger time to obtain required local development permits, for the design and construction of a conventional activated sludge wastewater treatment plant to reduce effluent BOD₅ loading. Preliminary details of the proposed wastewater treatment facilities, as well as an environmental assessment of this project and other alternatives, are contained in the document titled, "Analysis of Alternatives for Reducing Effluent Biochemical Oxygen Demand," prepared by CH2MHILL for Evergreen Pulp, Inc. and submitted to the Regional Water Board on May 29, 2007. Design of the system will include two new effluent pump stations, effluent cooling towers, a 7 million gallon activated sludge reactor, two 130-foot diameter secondary clarifiers, and sludge dewatering equipment. According to the alternatives analysis, wastewater treatment facilities will reduce effluent BOD₅ loading to approximately 1,950 lbs/day as a monthly average under anticipated pulp production rates.
13. On June 25, 2010, the Discharger submitted a letter stating that it was impossible to immediately comply with the newly incorporated final effluent limitations contained in the NPDES permit for settleable solids and turbidity for discharges of solids removed from the water treatment plant and discharged through the ocean outfall. The Discharger requested a time schedule to provide time to investigate a strategy for compliance. Tasks in the time schedule proposed by the Discharger include characterization of the solids discharge, treatment technology investigation, engineering design, contract bidding, construction, and final compliance testing.
14. Pursuant to California Water Code (Water Code) section 13385(j)(3), Mandatory Minimum Penalties (MMPs) for violations of effluent limitations for BOD₅ and TSS during the production of unbleached pulp and violations of effluent limitations for settleable solids and turbidity applicable to the discharge from the water treatment plant will not apply if the Regional Water Board finds that:
 - a. The Cease and Desist Order is issued on or after July 1, 2000, and specifies the actions that the discharger is required to take in order to correct the violations;
 - b. The regional board finds that the discharger is not able to consistently comply with one or more of the effluent limitations established in the waste discharge requirements applicable to the waste discharge because the effluent limitation is a new or more stringent regulatory requirement that has become applicable to the waste discharge after the effective date of the waste discharge requirements and after July 1, 2000, new or modified control measures are necessary in order to comply with the effluent limitation, and the new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days;
 - c. The regional board establishes a time schedule for bringing the waste discharge into compliance with the effluent limitation that is as short as possible, taking into account the technological, operational, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the effluent limitation; and
 - d. The discharger has prepared and is implementing in a timely and proper manner, a pollution control and prevention plan.

15. Effluent Limitations for BOD₅ During the Production of TCF Bleached Pulp

Although monitoring data from 2008 indicates that the Discharger is not likely to consistently comply with all final effluent limitations for BOD₅ during the production of TCF bleached pulp, the Discharger does not meet the requirements of Water Code section 13385(j)(3) and cannot obtain protection from MMPs for violations of the effluent limitations for BOD₅ during the production of bleached pulp. The final effluent limitations for BOD₅ during the production of bleached pulp in WDR Order No. R1-2010-0039 are not "new," nor are they more stringent than those required by the Facility's previous Waste Discharge Requirements, Order No. R1-2004-0047 (NPDES Permit No. CA0005894), adopted on June 22, 2004. They are the same limits that were required of the Facility in its last permit.

16. Effluent Limitation for BOD₅ and TSS During the Production of Unbleached Pulp

During the production of unbleached pulp, the Discharger meets the requirements of Water Code section 13385(j)(3), and therefore, MMPs for violations of the effluent limitations for BOD₅ and TSS will not apply because:

- a. This CDO is issued after July 1, 2000, and specifies the actions the Discharger is required to take to correct the violations;
- b. The final effluent limitations for BOD₅ and TSS during the production of unbleached pulp are newly established in waste discharge requirements for this Facility and are more stringent than the effluent limitations for BOD₅ and TSS during bleached pulp production, which were the effluent limitations in effect in previous permits for this Facility, irrespective of whether the final product was bleached or unbleached pulp. The Discharger has demonstrated that it will not be able to consistently comply with final effluent limitations for BOD₅ and TSS during the production of unbleached pulp. To ensure consistent compliance, the Discharger will need to implement control measures, specifically the Discharger will need to design and construct a conventional activated sludge wastewater treatment plant to reduce effluent BOD₅ loading. It will take the Discharger in excess of 30 calendar days to design and install the treatment plant;
- c. This Order establishes a time schedule for bringing the Facility into compliance with the effluent limitations for BOD₅ and TSS during the production of unbleached pulp that is as short as possible. The Discharger submitted a proposed project milestone schedule via email on March 11, 2010 that provided a time schedule for the Discharger to obtain required local development permits, and design and construct a conventional activated sludge wastewater treatment plant to reduce effluent BOD₅ loading. The Discharger submitted a letter dated April 21, 2010 that demonstrated to the satisfaction of the Regional Water Board Executive Officer that the time schedule is as short as practicable based on sound engineering judgment and experience with similar projects; and
- d. The Discharger will prepare and implement a best management practices plan (BMPP) to identify and control pollution. The BMPP will also serve as a pollution prevention plan.

17. Effluent Limitations for Settleable Solids and Turbidity Applicable to the Water Treatment Plant Discharge

When discharging solids from the water treatment plant, the Discharger meets the requirements of Water Code section 13385(j)(3), and therefore, MMPs for violations of the effluent limitations for settleable solids and turbidity will not apply because:

- a. This CDO is issued after July 1, 2000, and specifies the actions the Discharger is required to take to correct the violations;
- b. The final effluent limitations for settleable solids and turbidity for the discharge of solids from the water treatment plant are newly established in waste discharge requirements for this Facility. The Discharger has demonstrated that it will not be able to consistently comply with these final effluent limitations for settleable solids and turbidity given the nature of the solids discharge from the water treatment plant. To ensure consistent compliance, the Discharger will need to implement control measures to remove solids from the water treatment discharge or obtain regulatory relief through an expanded Ocean Plan exception from the State Water Resources Control Board. It will take the Discharger in excess of 30 calendar days to implement control measures or obtain regulatory relief;
- c. This Order establishes a time schedule for bringing the Facility into compliance with the effluent limitations for settleable solids and turbidity for the discharge of solids from the water treatment plant that is as short as possible.
- d. This Order requires the Discharger to limit the discharge of solids from the water treatment plant to the ocean to levels commensurate with current performance, as expressed through compliance with existing effluent limitations for total suspended solids at Effluent Monitoring Location EFF-002 for the water treatment plant.

18. Accordingly, violations of effluent limitations for BOD₅ and TSS in section A.2 of WDR Order No. R1-2010-0033 when producing unbleached kraft pulp and violations of effluent limitations for settleable solids and turbidity applicable to the discharge from the water treatment plant are not subject to MMPs if the Discharger is in compliance with this Cease and Desist Order, including the interim limitations and schedules set forth in this Order.

19. Interim effluent limitations in this Order for BOD₅ and TSS during the production of unbleached pulp are performance-based and were developed using effluent monitoring data from the Facility from 2005 through 2007, a period of time during which the Facility produced only unbleached pulp. The procedure for calculating the daily maximum and monthly average limitation is described in section 5.1.4 of the U.S. EPA NPDES Permit Writers' Manual (EPA-833-B-96-003). The one-sided, upper 95 percent confidence bound for the 95th and 99th percentiles of the effluent distribution for BOD₅ and TSS used in the calculation were obtained from the statistical program RPcalc Version 2.0.

20. The issuance of a cease and desist order subsequent to the issuance of waste discharge requirements is exempt from the California Environmental Quality Act (CEQA). (*Pacific Water Conditioning Ass'n, Inc. v. City Council of City of*

Riverside (1977) 140 Cal.Rptr. 812, 73 Cal.App.3d 546, 555-556 (holding that the statutory exemption from CEQA for the promulgation of waste discharge requirements contained in Water Code 13389 applies to the issuance of a subsequent cease and desist order to enforce the original waste discharge requirements). In addition, the issuance of the CDO is exempt from the requirements of CEQA pursuant to section 15321 of title 14 of the California Code of Regulations. That section exempts the adoption of an administrative decision or order, such as a cease and desist order, enforcing or revoking a permit or enforcing an objective. Similarly, section 15307 exempts from the requirements of CEQA actions taken by a regulatory agency to assure the "maintenance, restoration, or enhancement of a natural resources where the regulatory process involves procedures for protection of the environment," which a cease and desist order is meant to do. (See also *Pacific Water Conditioning*, 73 Cal.App.3d at 557.)

21. On July 15, 2010, after due notice to the Discharger and all other affected persons, the Regional Water Board conducted a public hearing and evidence was received regarding this Cease and Desist Order.
22. Petition of Regional Board Action - Any person affected adversely by a decision of the Regional Water Board may petition the State Water Board to review the decision. The State Water Board must receive the petition within 30 days of the Regional Water Board's meeting at which the action was taken. Copies of the laws and regulations applicable to filing a petition will be provided upon request, and may also be accessed at:
www.waterboards.ca.gov/public_notices/petitions/water_quality.

THEREFORE, IT IS HEREBY ORDERED, pursuant to Water Code Section 13301, that the Discharger shall cease discharging waste in violation of Waste Discharge Requirements Order No. R1-2010-0033 forthwith in accordance with the following time schedules:

1. Schedule to Cease Discharging Effluent with Levels of BOD₅ and TSS Greater Than Effluent Limitations Required by Effluent Limitation A.2 of Waste Discharge Requirements, Order No. R1-2010-0033.

Task	Compliance Date
A. Submit a revised best management practices plan (BMPP) to identify measures that the Discharger will take to minimize discharges of BOD ₅ and TSS until the wastewater treatment plant is completed. The revised BMPP shall include a schedule for implementation of BMPs and a procedure for assessing the effectiveness of BMPs and implementing additional BMPs based on the assessment.	February 19, 2011
B. Provide financial assurances for funding design and construction of the wastewater treatment plant at the Facility in a form acceptable to the Regional Water Board Executive Officer.	December 16, 2010

C. Submit preliminary project proposal, including a description of the treatment technology selection process and details of the selected final project. Details of the selected project should include, at a minimum: final location of the treatment plant, design criteria, descriptions of unit processes, and process flow diagrams, and preliminary design drawings.	December 16, 2010
D. Submit complete application to the County of Humboldt to secure required development permits for the wastewater treatment plant.	January 10, 2011
E. Submit complete application to the North Coast Unified Air Quality Management District for an Authority to Construct Permit for the wastewater treatment plant.	January 10, 2011
F. Award engineering and design contract for the wastewater treatment plant.	March 16, 2011
G. Complete 60% level specifications and design drawings.	September 12, 2011
H. Submit final specifications and design drawings to the Regional Water Board Executive Officer.	February 7, 2012
I. Issue bid packages for construction contract.	April 6, 2012
J. Award construction contract for the wastewater treatment plant.	June 6, 2012
K. Commence construction of the wastewater treatment plant.	July 5, 2012
L. Complete construction of the wastewater treatment plant.	October 29, 2013
M. Full operation of the wastewater treatment plant in compliance with applicable NPDES permit effluent limits following start-up and initial performance tests.	January 23, 2014
N. Submit final as-built drawings and results of performance tests to the Regional Water Board.	February 27, 2014

2. Schedule to Cease Discharging Effluent with Levels of Settleable Solids and Turbidity Greater Than Effluent Limitations Required by Effluent Limitation A.3 of Waste Discharge Requirements, Order No. R1-2010-0033.

Task	Compliance Date
A. Review monitoring data and conduct initial technology evaluation for dewatering of water treatment plant solids.	January 31, 2011
B. Characterize the settling properties of the water treatment plant solids for final evaluation of dewatering technologies.	March 14, 2012
C. Conduct onsite pilot testing.	June 12, 2012
D. Submit workplan of implementing compliance solution.	August 9, 2012
E. Submit complete applications for permits necessary to implement compliance solution.	November 8, 2012
F. Complete and submit engineering design specifications for compliance solution.	March 7, 2013
G. Award contract for the installation or construction of the compliance solution.	May 8, 2013
H. Complete construction of the compliance solution.	September 5, 2013
I. Achieve full operation of the compliance solution and compliance with applicable NPDES permit effluent limits following start-up and initial performance tests.	October 10, 2013

3. Quarterly Progress Reports

The Discharger shall submit quarterly written progress reports on compliance efforts to the Executive Officer. Regional Water Board staff may periodically present an informational update to the Regional Water Board based on the progress reports. The Discharger is required to continue operating pollution control systems and maintaining and implementing its BMPP to the best of its ability until the wastewater treatment plant is completed. The Discharger shall include in its quarterly progress reports a discussion of the operations, including current interim control measures in use and additional control measures implemented in accordance with the BMPP to minimize the discharge of BOD₅ and TSS. The progress reports shall describe what steps have been implemented towards achieving compliance with WDR Order No. R1-2010-0033 and this Order, including construction progress, evaluation of the effectiveness of the implemented measures and assessment of whether additional measures are necessary to meet the time schedule set forth above.

4. Interim limits for BOD₅ and TSS in effect until January 23, 2014:

Section 13385(j)((3)(C) requires that if the time schedule exceeds one year from the effective date of the Order, the Regional Water Board must not only include interim requirements and dates for their achievement, but also interim effluent limitations for

the pollutants of concern. From adoption of this Order until January 23, 2014, while manufacturing unbleached pulp, the Discharger shall maintain compliance with the following interim effluent limitations for BOD₅ and TSS at Discharge Point 001 with compliance measured at Monitoring Location EFF-001 as described in the Monitoring and Reporting Program.

Parameter	Units	Effluent Limitations - Unbleached Pulp					
		Average Monthly ²	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Six-Month Median
TSS	lbs/day ²	17,025	---	30,488	---	---	---
BOD ₅	lbs/day ²	16,074	---	19,788	---	---	---

- The Discharger shall not incur MMPs for violations of effluent limitations for BOD₅ and TSS in WDR Order No. R1-2010-0033 during the production of unbleached pulp so long as the discharge complies with the above interim limitations for BOD₅ and TSS.
- Interim Limitations for TSS in effect until October 10, 2013:

Section 13385(j)((3)(C) requires that if the time schedule exceeds one year from the effective date of the Order, the Regional Water Board must not only include interim requirements and dates for their achievement, but also interim effluent limitations for the pollutants of concern. From adoption of this Order until October 10, 2013, the Discharger shall maintain compliance with effluent limitations for suspended solids at EFF-002, which will limit the discharge of total solids from the water treatment plant to current levels.

Total Suspended Solids	Pounds per day	
	Daily Maximum	Monthly Average
Wet Season (Oct. – Apr.)	400,000	70,000
Dry Season (May – Sept.)	400,000	14,000

- The Discharger shall not incur MMPs for violations of effluent limitations for settleable solids and turbidity in WDR Order No. R1-2010-0033 for the discharge of solids from the water treatment plant so long as the discharge complies with the above interim limitations for total suspended solids, as measured at Monitoring Location EFF-002. Because total suspended solids serves as a surrogate for settleable solids and turbidity for the purpose of this CDO, any violation of an interim effluent limitation for total suspended solids shall be deemed a violation for settleable solids and a violation for turbidity and will be subject to MMPs in accordance with section 13385 (h) and (i) of the Water Code.

² The monthly discharge (lbs/day) of BOD₅ and TSS during production of unbleached pulp is obtained from the following calculation on any calendar month:

$$\text{Monthly Discharge (lbs/day)} = \frac{8.34}{N} \sum_{i=1}^N Q_i C_i$$

in which N is the number of days of production of unbleached pulp in any calendar month. Q_i and C_i are the flow rate (mgd) and the constituent concentration, respectively, which are associated with each of the N days in any calendar month.

8. If, given written justification from the Discharger, the Executive Officer determines that a delay in any activity in any compliance schedule in the Order is beyond the reasonable control of the Discharger and is not caused by inaction or lack of proper planning on the part of the Discharger, the Executive Officer may revise the compliance schedule as appropriate. Written justification must be received by the Executive Officer before the specific due date occurs, must describe circumstances causing the delay, and must state when each of the remaining tasks of the compliance schedule will be completed.
9. Except for storm water, the Discharger shall not commence discharge prior to October 13, 2010, except upon written notice to the Executive Officer, who may in such event revise the compliance schedule to advance the deadlines set forth therein by the number of days before October 13, 2010 on which such discharge commences.

IT IS FURTHER ORDERED that if, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer is authorized to request that the Attorney General take appropriate judicial enforcement, issue a complaint for Administrative Civil Liability, bring an order before this Regional Water Board to revoke WDR Order No. R1-2010-0033, or take other appropriate enforcement actions as authorized by the California Water Code.

Certification

I, Catherine Kuhlman, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a Cease and Desist Order adopted by the California Regional Water Quality Control Board, North Coast Region, on July 15, 2010.

Catherine Kuhlman
Executive Officer