

California Regional Water Quality Control Board
North Coast Region

Order No. R1-2002-0110

Waste Discharge Requirements
ID No. 1B02144RHUM
for

Pierson Lumber Company
4100 Broadway
Eureka, California

Humboldt County

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

1. Pierson Lumber Company (hereinafter discharger) submitted a Report of Waste Discharge dated December 4, 2000. The Report of Waste Discharge was completed on August 29, 2002.
2. The discharger proposes in-situ remediation of petroleum discharges to soil and groundwater from a former underground tank located at 4100 Broadway in Eureka as shown on **Enclosure A** (hereinafter site). In-situ remediation will involve the injection of 6,600 gallons of a microbial and nutrient solution called BioJet[®] to shallow groundwater. The BioJet[®] will be injected at least one application and as many as three applications. The solution contains a proprietary mixture of mesophilic and thermophilic microbes, nitrogen, ammonium nitrate, potassium, ortho-phosphate, and water.
3. Nine monitoring wells, thirty-eight soil samples, and twenty-seven grab groundwater samples characterize and define the extent of contamination at the site. The discharger calculates that the impacted soils and groundwater resulting from the release at 4100 Broadway occupy approximately 3,000 cubic yards as shown on **Enclosure B**. The discharger estimates that approximately 2800 pounds of petroleum hydrocarbons are impacting soil and groundwater.
4. In-situ remediation of groundwater and water bearing soils contaminated with petroleum hydrocarbons will involve installation of 66 temporary injection points surrounding and within the source area. Injection of BioJet[®] will occur over a 4- to 5-day period. Injection treatment will occur on up to three occasions within a 12 to 18 month treatment period. The BioJet[®] solution will initiate a biochemical conversion of the petroleum hydrocarbons. The reactions are induced by extracellular enzymes present on the microbes. The conversion reactions involve a reduction process of fixing hydrogen ions and an oxidation process of fixing the oxygen ions to yield stable non-petroleum compounds, such as carbon dioxide and water. Application of the BioJet[®] solution has oxidized and remediated greater than 99% of the petroleum hydrocarbon contamination in bench scale tests using site-specific soil media.
5. The Water Quality Control Plan for the North Coast Region includes water quality objectives and receiving water limitations.

6. The beneficial uses of areal groundwater include:
 - a) Municipal and domestic supply
 - b) Agricultural supply
 - c) Industrial service supply
 - d) Industrial process supply
7. The Regional Water Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations.
8. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.
9. The permitted discharge is a minor cleanup action costing less than \$1 million taken to prevent, minimize, stabilize, mitigate, or eliminate the release of hazardous waste or substance and is therefore exempt from the California Environmental Quality Act (Public Resources Code Section 21000 et seq.) pursuant to Title 14 California Code of Regulations Section 15330.
10. The permitted discharge is consistent with the antidegradation provision of State Water Resources Control Board Resolution No. 68-16. The impact on existing water quality will be insignificant.

THEREFORE, IT IS HEREBY ORDERED that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

A. DISCHARGE PROHIBITIONS

1. There shall be no discharge of waste to surface waters at any time as the result of in-situ remediation of petroleum contaminated soil and groundwater.
2. The discharge of any waste not specifically regulated by this Order is prohibited.
3. Creation of a pollution, contamination, or nuisance, as defined by Section 13050 of the California Water Code (CWC), is prohibited. [Health and Safety Code, Section 5411]
4. The discharge of waste to land that is not under the control of the discharger is prohibited.
5. The discharge of waste or the placement of contaminated material on property not specified in the report of waste discharge completed on August 29, 2002 or in this Order is prohibited.
6. Contaminated soil and groundwater treatment activities in areas where access by the general public is not controlled is prohibited.

7. The remediation of soil and groundwater without appropriate permits from the City of Eureka, County of Humboldt, or other agency having jurisdiction is prohibited.

B. SPECIFICATIONS

1. The discharge shall not cause the pH of the groundwater to be changed more than 0.5 units from that which occurs naturally for more than 90 days beyond the date of initial discharge(s).
2. The discharger shall not cause the concentration of nitrate as nitrogen in groundwater to exceed the California Public Health Goal (PHG) for drinking water of 10 mg/l for more than 90 days beyond the date of initial discharge(s).
3. The discharger shall not cause the concentration of ammonia in groundwater to exceed the taste and odor threshold of 500 ug/l for more than 90 days beyond the date of initial discharge(s).
4. The discharger shall not cause the concentration of potential intermediary compounds including, but not limited to acetone, carbon disulfide, 2-butanone, bromodichloromethane, 1,2-dichloropropane, 4-methyl 1-2-pentanone, 1,1,2-tetrachloroethane, 2-hexanone, chlorobenzene, 1,1,2,2-tetrachloroethane, 1,2,3-trichloropropane, isopropylbenzene, n-propylbenzene, 4-chlorotoluene, tert-butylbenzene, sec-butylbenzene, and n-butylbenzene to exceed a background concentration of not-detectable for more than 90 days beyond the date of initial discharge(s).

C. PROVISIONS

1. A copy of this Order shall be maintained by the discharger and be available at all times to operating personnel.

2. Severability

Provisions of these waste discharge requirements are severable. If any provision of these requirements is found invalid, the remainder of these requirements shall not be affected.

3. Operation and Maintenance

The discharger must maintain in good working order and operate as efficiently as possible any facility or control system installed by the discharger to achieve compliance with the waste discharge requirements.

4. Change in Discharge

The discharger must promptly report to the Regional Water Board any material change in the character, location, or volume of the discharge.

5. Change in Ownership

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 must notify the succeeding owner or operator of the following items by letter, a copy of which must be forwarded to the Regional Water Board:

- a. existence of this Order; and
- b. the status of the dischargers' annual fee account.

6. Vested Rights

This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the discharger from his liability under federal, State, or local laws, nor create a vested right for the discharger to continue the waste discharge.

7. Monitoring

The discharger must comply with the Contingency Planning and Notification Requirements Order No. 74-51, Monitoring and Reporting Program No. R1-2002-0110, and any modifications to these documents as specified by the Executive Officer. Such documents are attached to this Order and incorporated herein. Chemical analyses must be conducted at a laboratory certified for such analyses by the State Department of Health Services.

8. Signatory Requirements

- a. All Report of Waste Discharge applications submitted to the Regional Water Board shall be signed by either a principal executive officer, ranking elected official, or a responsible corporate officer. For purposes of this provision, a responsible corporate officer means:

- i. a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation; or
- ii. the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

- b. Reports required by this Order, other information requested by the Regional Water Board may be signed by a duly authorized representative provided:

- i. the authorization is made in writing by a person described in paragraph (a) of this provision;

- ii. the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company; and
 - iii. the written authorization is submitted to the Regional Water Board prior to or together with any reports, information, or applications signed by the authorized representative.
- c. Any person signing a document under paragraph (a) or (b) of this provision shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted, is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

9. Inspections

The discharger shall permit authorized staff of the Regional Water Board:

- a. entry upon premises in which an effluent source is located or in which any required records are kept;
- b. access to copy any records required to be kept under terms and conditions of this Order;
- c. inspection of monitoring equipment or records; and
- d. sampling of any discharge.

10. Noncompliance

In the event the discharger is unable to comply with any of the conditions of this Order due to:

- a. breakdown of waste treatment equipment;
- b. accidents caused by human error or negligence; or
- c. other causes such as acts of nature;

the discharger must notify the Executive Officer by telephone as soon as he or his agents have knowledge of the incident and confirm this notification in writing within two weeks of the telephone notification. The written notification shall include pertinent information explaining reasons for the noncompliance and shall indicate the steps taken to correct the problem and the dates thereof, and the steps being taken to prevent the problem from recurring.

11. This Regional Water Board requires the discharger to file a report of waste discharge at least 120 days before making any material change or proposed change in the character, location, or volume of the discharge.

Certification

I, Susan A. Warner, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, North Coast Region, on December 5, 2002.

Ordered by

Susan A. Warner
Executive Officer

(prsn_wdrfinal)