



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Carroll D. Besadny, Secretary
Box 7921
Madison, Wisconsin 53707
TELEFAX NO. 608-267-3579
TDD NO. 608-267-6897
File Ref: 4190

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

September 14, 1990

Mr. Vernon C. Lundequam
General Manager
Penta Wood Products, Inc.
Siren, WI 54872

RECEIVED

SEP 18 1990

NORTHWEST DISTRICT
HEADQUARTERS

Dear Mr. Lundequam:

Enclosed is Special Order NWD-90-08 issued by the Department of Natural Resources requiring an investigation and interim remediation of soils and groundwater caused by hazardous waste disposal on Penta Wood Products, Inc., property. In addition, Penta Wood Products, Inc., is required, by s. 144.64(2m), Wis. Stats., to prepare, submit, and implement a final closure plan. The final closure and long-term care plan must take into account information gathered through this site investigation, interim closure and corrective action required by this Special Order.

If you wish to contest this Order, please refer to the notice at the end of the Order. The time period for seeking review of this Order begins with the date of this letter.

If you have any questions concerning this matter, please contact Attorney Peter Flaherty at 608/266-8254 or District Enforcement Specialist Mick Michaelsen at 715/635-4069.

Sincerely,

John L. LaFontaine

John L. LaFontaine, Director
OFFICE OF ENVIRONMENTAL ENFORCEMENT
DIVISION OF ENFORCEMENT

cc: Peter Flaherty - LC/5
Mick Michaelsen - NWD

Gary LeRoy - NWD
SW/3

Lorraine Stoltzfus, DOJ, Box 7857, Madison, WI 53707-7857

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BEFORE THE
STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

In the Matter of Groundwater and Soil)
Contamination Allegedly Caused by) Special Order NWD-90-08
Hazardous Waste Disposal at Penta)
Wood Products, Inc., Siren, Wisconsin)

SPECIAL ORDER
INVESTIGATION, INTERIM CLOSURE, AND CORRECTIVE ACTION

FINDINGS OF FACT

1. Penta Wood Products, Inc. (PWP), a Wisconsin Corporation (WID006176945), is located approximately 2 miles west of Siren, WI in the SE 1/4, Section 11, T38N, R17W, Town of Daniels, Burnett County. PWP is a wood-treating plant and maintains on its property, above and below ground, bulk storage tanks, pressure treatment cylinders, and oil/water separator tanks that contain pentachlorophenol (PCP), Chemonite (ammoniacal copper zinc arsenate), and fuel oil for wood preservation.
2. PWP has notified the U.S. EPA and the Department of hazardous waste generation activity.
3. PWP generates the following hazardous wastes:
 - a. (F027), under s. NR 181.16(2), Wis. Adm. Code, Table II: Discarded, used, or unused formulations containing tri-, tetra-, or pentachlorophenol.
 - b. (D004), under s. NR 181.15(5), Wis. Adm. Code, Table I: Characteristic of EP toxicity for arsenic.
4. On October 23, 1986, an unreported Chemonite spill from the Chemonite treatment cylinder operation occurred. The chemical preservative was discharged to the soil on PWP property. Samples collected on December 17, 1986, showed Chemonite and PCP constituents present in the soil.
5. On March 25, 1988, the Department collected samples from PWP water supply wells. The 6" well had a PCP concentration of 1300 ug/l. On April 7, 1988, additional sampling was performed on PWP 4" and 6" wells; 2700 ug/l and 1100 ug/l PCP concentrations were detected, respectively. PWP officials were advised by letter on May 17, 1988, to inform their employees not to drink any water from the wells.
6. On June 9, 1988, an unreported spill from the oil/water separator building occurred. Inside the oil/water separator building was an approximate area of 12' by 10' of oil-soaked soil near the open top storage tank. The separator building has an earthen floor.
7. On August 2, 1988, Conestoga Rovers and Associates (CRA), consultants for PWP, submitted a site evaluation report to the Department. In this report, CRA states that PCP was detected in the soil around the oil/water separator area and Chemonite treating area. These areas represent potential sources of groundwater contamination. Water from PWP production wells is contaminated with PCP. CRA suggests the upper aquifer is contaminated with PCP and is leaking through a hard pan layer into the lower aquifer. The source of the PCP is thought to be a PCP mixing tank in the vicinity of the wells. This report also contains a work plan to:
 - a. Define the hydrogeology under the site;
 - b. Determine groundwater flow direction and rate in the upper sand aquifer;

- c. Determine whether the upper and lower aquifers are connected by the production well casing;
 - d. Determine groundwater quality in the upper-most aquifer.
8. On October 27, 1988, the Department commented on the site evaluation report and Phase II work plan and identified additional activities to be conducted by CRA.
9. On December 9, 1988, on behalf of PWP, CRA submitted a Revised Scope of Work to the Department, that:
 - a. Identifies four potential source areas that will be further investigated to determine the vertical and horizontal extent of the contamination;
 - b. Includes installation of two monitoring wells to determine groundwater flow direction and collection of water samples to be analyzed for PCP.
 - c. Provides for additional monitoring wells in the event groundwater chemical results show the need to expand the study.
10. On March 7, 1989, the Department commented on CRA's Revised Scope of Work and recommended that:
 - a. A test trench be dug parallel to the PCP treatment area rail track for the purpose of determining PCP soil concentrations along the length of track;
 - b. Soils under past and present wood chip/boiler ash disposal sites be sampled and tested for chlorodibenzo-p-dioxin; and
 - c. CRA propose a firm schedule for the proposed Scope of Work.
11. On April 13, 1989, CRA submitted a compliance schedule with groundwater monitoring well installation by June 9, 1989, and a final report due to the Department on August 25, 1989.
12. On June 15, 1989, Wisconsin Test Drilling attempted to install two monitoring wells on PWP property, but abandoned both attempts and filled the drill holes with grout.
13. CRA's report entitled "Site Evaluation Phase II" was received by the Department on October 13, 1989. CRA proposed excavating an abandoned 10,000-gallon underground PCP transfer tank, which is located approximately 20 feet from PWP production wells. CRA proposed checking it for suspected leakage, collecting soil samples beneath the tank, and analyzing the soils for PCP.
14. Until October 5, 1989, PCP and fuel oil wastewater (F027 hazardous waste) from the oil/water separator tank were disposed of on-site by PWP. PWP transferred the waste from the oil/water separator tank to a portable tank and discharged the waste at:
 - a. the wood shavings pile on the west boundary of the property;
 - b. the old lagoon site located on the northeast corner of the property;
 - c. the location of the portable storage tank observed on October 5, 1989, along the access road bordering the north edge of the property.
15. On October 5, 1989, the Department conducted a hazardous waste management review and collected samples at the locations listed below. The Department received the following results of sample analysis from the State Lab of Hygiene on November 7, 1989:

<u>SAMPLE #</u>	<u>LOCATIO</u>	<u>PARAMETER</u>	<u>CONCENTRATIO</u> <u>N</u>
P001	Soil sample inside O/W separator building, NE corner	Pentachlorophenol #2 fuel oil	17,000 ug/g detected
P002	Liquid in Chemonite treatment cylinder pit	Pentachlorophenol EP Toxicity - Arsenic	340 ug/g 1100 mg/l
P003	Soil sample from gully leading to old lagoon	Pentachlorophenol #2 fuel oil	900 ug/g detected
P004	Soil, wood chips, and liquid from old lagoon	Pentachlorophenol #2 fuel oil	40,000 ug/g detected
P005	Liquid from discharge pipe from portable bulk tank	Pentachlorophenol #2 fuel oil	11,000 ug/g detected
P006	Soil 4 feet away from portable tank	Pentachlorophenol #2 fuel oil	1,300 ug/g detected

16. On December 13, 1989, the Department collected two samples of PWP's wood shavings pile located on the west boundary of the property. The samples were analyzed by the State Lab of Hygiene and reported to the Department on February 6, 1990.

<u>SAMPLE #</u>	<u>LOCATION</u>	<u>PARAMETER</u>	<u>CONCENTRATIO</u> <u>N</u>
PS01	Wood shavings	Pentachlorophenol	4,100 ug/g
PS02	Wood shavings	Pentachlorophenol	5,100 ug/g

17. Beginning in February through March 1990, Beecroft Well Drilling Company, on behalf of PWP, installed four groundwater monitoring wells. Samples were taken by the Department on May 8, 1990. These samples were analyzed by the State Lab of Hygiene for pentachlorophenol and reported to the Department on May 18, 1990:

<u>WELL #</u>	<u>LOCATION</u>	<u>PARAMETER</u>	<u>CONCENTRATIO</u> <u>N</u>
#3	Near PWP office	Pentachlorophenol	1.1 ug/l
#4	Wood storage, approximately 1000' east of office	Pentachlorophenol	N.D. <0.5 ug/l
#5	Old lagoon site	Pentachlorophenol	39,000 ug/l
#6	Oil/water separator	Pentachlorophenol	130 ug/l

18. The PWP facility is not a licensed to store, treat or dispose of solid waste or hazardous waste. In addition, PWP does not have a variance, waiver, or exemption from the Department which would allow it to dispose of hazardous waste on its property.

19. Penta Wood Products, Inc. does not have a Wisconsin Pollutant Discharge Elimination System (WPDES) permit for the treatment and discharge of the liquid wastes generated at the oil/water separator.

CONCLUSIONS OF LAW

1. The Department has established ch. NR 181, Wisconsin Administrative Code (Hazardous Waste Management), under the authority granted in s. 144.62, Wis. Stats.

2. Discarded, used or unused formulations containing tri-, tetra-, or pentachlorophenol or discarded, used or unused formulations containing compounds derived from these chlorophenols is a listed hazardous waste (F027) under s. NR 181.16, Wis. Adm. Code.
3. Water from the oil/water separator contaminated with a listed hazardous waste is defined as a hazardous waste in s. NR 181.12(1)(b)2., Wis. Adm. Code.
4. Soil contaminated with a listed hazardous waste is defined as a hazardous waste under s. NR 181.12(1)(b)2., Wis. Adm. Code and under s. NR 181.16(3)(a)4., Wis. Adm. Code, which includes "Any residue or contaminated soil resulting from the cleanup of a spill...of any commercial chemical product...having a generic name listed in Table IV or V."
5. Section 144.63(9), Wis. Stats., requires any person generating hazardous waste to arrange that all wastes generated by them are transported, treated, stored or disposed of at facilities holding a license, variance, or waiver issued under ss. 144.60 to 144.74, Wis. Stats.
6. Under s. NR 181.08(2), Wis. Adm. Code, the Department may require any generator to comply with all or part of the requirements of subch. V (standards for storage, treatment and disposal facilities) where compliance with such requirements is necessary to protect public health, safety or welfare or the environment, if the Department determines that hazardous waste or hazardous waste constituents have been discharged since May 20, 1978, at the generation site.
7. The Department may issue special orders under s. 144.73(1)(b), Wis. Stats., to require compliance with ss. 144.60 through 144.74, Wis. Stats., or any rule promulgated under those sections, within a specified time period.
8. This Order is reasonable and necessary to protect public health, safety or welfare, or the environment to accomplish the purposes of ss. 144.63 and 144.64, Wis. Stats., and is enforceable under s. 144.74, Wis. Stats.

ORDER

Based upon the foregoing Findings of Fact and Conclusions of Law, the Department hereby orders Penta Wood Products, Inc., to conduct further investigation, interim hazardous waste closure and corrective action activities as follows:

1. Within 30 days of the effective date of this Order, begin an investigation into the extent and degree of contamination resulting from activities at PWP.
 - a. The soils component of the investigation shall define the extent and degree of contamination of the soil at PWP and any other adjacent affected properties. At a minimum, the soil investigation shall include the following elements and be completed within 90 days of the effective date of this Order:
 - NO* i. Conduct soil borings within the wood chip area used for process wastewater disposal to determine the extent of PCP contamination.
 - NO* ii. Excavate the 10,000-gallon underground transfer tank. Examine the tank for integrity, conduct three soil borings below tank excavation, and collect soil samples from the borings to determine if PCP has leaked from the tank.
 - maybe* iii. Determine the vertical extent of PCP contamination within oil/water separator building. Collect samples for PCP and fuel oil quantification.
 - NO* iv. Conduct soil borings and collect soil samples within the confines of the former lagoon location to determine the extent of PCP and fuel oil contamination. This shall include borings and samples collected below the steep ground surface relief to the northeast. *NO*

- v. Conduct soil borings and collect soil samples ^{yes} 100-yard intervals along gullies running southwest to northeast from CRA boring site B9 to the lagoon location.
 - vi. Conduct soil borings and sampling at the site of the portable tank found during the hazardous waste management review on October 5, 1989. ^{yes}
- b. The groundwater component of the investigation shall include the following elements:
- i. ^{yes} All monitoring wells on PWP property shall be sampled and reported on a monthly basis for six months (starting 15 days after the effective date of this Order) and, thereafter, quarterly to establish a data set. Monitoring shall ^{yes} include depth to groundwater, sampling for pentachlorophenol, fuel oil, and the parameters listed in s. NR 181.49(5)(a)1.-4., Wis. Adm. Code.
 - ii. ^{NO} Within 120 days of the effective date of this Order, establish a minimum of three wells in the vicinity of the wood chip disposal area (west side of property), with one well upgradient and two downgradient of the disposal area. These wells shall be established within the upper most aquifer, and sampled and ^{2-3 samples} reported on a monthly basis beginning 30 days after completion and continuing for six months, and then quarterly to establish a data set.
 - iii. ^{NO} This information shall be reported on a quarterly basis.
2. Within 270 days of the effective date of this Order, submit a report to the Department of the findings of the investigation and propose an interim closure and corrective action report for soil and groundwater contamination. The report shall include, but not be limited to, a plan and timetable for:
- a. ^{yes} A groundwater contour map within the property boundaries.
 - b. ^{yes} Preparation of isoconcentration line maps indicating pentachlorophenol and fuel oil contamination for subsurface soil and groundwater.
 - c. ^{NO} Removal of PCP-contaminated soils, sawdust, and wood chips from the source areas to eliminate the continued release of PCP to the groundwater.
 - d. ^{NO} Methods for containerizing all PCP-contaminated materials in accordance with Chapter NR 181, Wis. Adm. Code, in preparation for proper treatment or disposal.
 - e. ^{NO} Provisions for excavated PCP source areas to be sampled (using proper QA/QC procedures) after excavation to determine remaining PCP levels in the soil.
 - f. ^{Some} Include in the groundwater component of the plan a discussion of the QA/QC and method related to the collection of groundwater samples, decontamination of equipment between sampling, field screening of groundwater samples, laboratory analysis of groundwater samples, and containerization/disposal of monitoring well purge water and contaminated soil borings.
 - g. The report shall be prepared in accordance with ss. NR 181.42(8) and (9), 181.43, 181.44, 181.49 and 181.51(1), Wis. Adm. Code.
3. Implement the interim closure and corrective action plan according to the terms and conditions of the Department's approval. Implementation shall begin within 30 days of the Department's approval of the remediation plan.
4. ^{NO} Within 120 days of the effective date of this Order, install and maintain an automatic feed cut-off equipment/unit at the oil/water separator building. This equipment will effectively prevent overflow of oil/water separator containment units.

5. In preparing the final closure plan required under s. 144.64(2i), Wis. Stats., PWP shall take into consideration the site investigation and interim closure and corrective action performed under this Order.
6. Submit monthly progress reports of implementation and remediation activity to the Department by the 10th of each month. One copy of each plan and progress report required by this Order shall be submitted to:

Dave Kafura
WI Department of Natural Resources
P.O. Box 309
Spooner, WI 54801

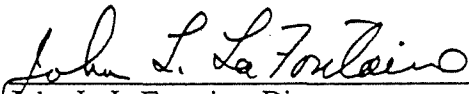
Hazardous Waste Section - SW/3
WI Department of Natural Resources
P.O. Box 7921
Madison, WI 53707
7. The Department retains jurisdiction to amend this Order if such action is necessary for the protection of public health, safety, welfare or the environment.

NOTICE OF APPEAL RIGHTS

This Order shall become effective unless a written request for a hearing to contest the issuance of this Order, or any of its terms, is filed with the Department within 30 days after the date this Order is mailed. All hearing requests shall be filed either by delivery to the Office of the Secretary of the Department at 101 South Webster Street, Madison, WI or by certified mail addressed to the Office of the Secretary of the Department at 101 South Webster Street, Madison, WI 53707. If a hearing is requested, the Order shall not become effective until the hearing examiner has issued a decision affirming or modifying the Order. This notice is provided pursuant to s. 227.48(2), Wis. Stats.

Dated at Madison, Wisconsin, this 14th day of September, 1990.

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
By:



John L. LaFontaine, Director
OFFICE OF ENVIRONMENTAL ENFORCEMENT
DIVISION OF ENFORCEMENT