

25107

DEPARTMENT OF ECOLOGY

IN THE MATTER OF THE COMPLIANCE BY)
LEICHNER BROTHERS LAND RECLAMATION)
CORPORATION WITH THE MODEL TOXICS)
CONTROL ACT and the RULES AND)
REGULATIONS of the DEPARTMENT OF)
ECOLOGY)

ORDER
NO. DE 89-S119

TO: Leichner Brothers Land Reclamation Corporation
911 Northeast 94th Avenue
Vancouver, Washington 98666

I.
JURISDICTION

This Order is issued pursuant to the authority of Section 5(1) of the Model
Toxics Control Act (MTCA or Act).

II.
STATEMENTS OF FACT

- A. A landfill in Clark County is owned and operated by the Leichner Brothers Land Reclamation Corporation. The landfill is situated in Clark County, Washington, approximately four (4) miles northwest of Vancouver and one and one-half (1.5) miles north of Orchards. The landfill lies in Section 4, Township 2 North, Range 2 East and in Section 33, Township 3 North, Range 2 East of the Willamette Meridian.
- B. It has been established that hazardous substances are issuing from the waste matter buried at the sanitary landfill. Various hazardous substances have been detected in groundwaters of the landfill, including but not limited to: Vinyl Chloride at levels up to 7.5 micrograms per litre.
- C. Ecology has notified the Leichner Brothers Land Reclamation Corporation that they are a potentially liable person in this matter. The notification was effected under all pertinent points of the Model Toxics Control Act.
- D. An initial remedial investigation dated February 16, 1988 and an initial feasibility study dated April 1988 have been completed under Ecology Consent Order No. DE 86-S131 by the Leichner Land Reclamation Corp.; they have confirmed the presence of hazardous substances in site groundwaters, at levels which violate standards of health.
- E. The information obtained prior to this order establishes the need for groundwater treatment at this site. Therefore, the following points require completion to cleanup the site waters:

1. Further characterize the quality, quantity, and transport of all contaminants issuing from the Leichner Landfill;
2. Define and evaluate acceptable treatment schemes for rendering collected hazardous wastes innocuous;
3. Eliminate, or reduce to acceptable levels, the migration of groundwater contaminants from the Leichner Landfill;

III.
ECOLOGY DETERMINATIONS

- A. The Leichner Brothers Land Reclamation Corporation is an "owner or operator" as defined at Sec. 2 (6) of the Act.
- B. The site described above is a "facility" as defined at Sec. 3(3) of the Act.
- C. The substances found at the facility and as described above are "hazardous substances" as defined at Sec. 2(5) of the Act.
- D. Based on the presence of these hazardous substances at the facility and all factors known to the Department, there is a release or threatened release of hazardous substances from the facility, as defined at Sec. 2(10) of the Act.
- E. The Department has found Leichner Brothers Land Reclamation Corporation to be a potentially liable party under Sec. 4 of the Act, after notice and opportunity for comment.
- F. Pursuant to Sec. 3(1) and Sec. 5, the Department may require potentially liable persons to investigate or conduct other remedial actions with respect to the release or threatened release of hazardous substances.

IV.
ORDER

Based on the foregoing facts and determinations, it is hereby ordered that Leichner Brothers Land Reclamation Corporation take the following remedial actions.

A. GENERAL CONDITIONS

1. Public Notice: The MTCA and rules adopted thereunder require that, at a minimum, this Order be subject to concurrent public notice. Sec. 3(2)(a). The Department shall be responsible for providing such public notice and reserves the right to modify or withdraw any provisions of this Order should public comment disclose facts or considerations which indicate to the Department that the Order is inadequate and improper in any respect.

2. Permits: This order does not relieve Leichners' responsibility for satisfying the procedural and substantive requirements of all applicable local, state or federal permits.
3. Oversight Costs: The Respondent shall pay to Ecology those costs incurred by the Department for investigative, remedial actions and orders, including costs incurred by Ecology in the oversight or administration of this Order. At the end of each fiscal quarter Ecology will submit to Leichner Brothers Land Reclamation Corporation a summary statement of Ecology's reasonable and appropriate costs associated with this Order. Following receipt of this statement, Leichner Brothers Land Reclamation Corporation shall pay the required sum within 60 days into the State Toxics Control Account.
4. Designated Project Coordinators: Within 10 days of the effective date of this Order, the Respondent shall designate a project coordinator. The project coordinator shall be responsible for overseeing the implementation of this Order. To the maximum extent possible, communications between Ecology and the Respondent and all documents, including reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Order, shall be directed through the project coordinators. Should Respondent change its project coordinator, written notification shall be given to Ecology, in writing, at least 10 calendar days prior to the change.
5. Performance: All response work performed pursuant to this Order shall be under the direction and supervision, as necessary, of a professional engineer or certified hydrogeologist, or equivalent, with experience and expertise in hazardous waste site investigation and cleanup. The Respondent shall notify Ecology as to the identity of such engineer(s) or hydrogeologist(s), and of any contractors and subcontractors to be used in carrying out the terms of this Order, in advance of their involvement at the site. Selection of such person or contractor shall be subject to Ecology approval.
6. Access: Ecology or any Ecology authorized representative shall have the authority to enter and freely move about all property at the site at all reasonable times for the purposes of, inter alia: inspecting records, operation logs, and contracts related to the work being performed pursuant to this Decree; reviewing the progress in carrying out the terms of this Order; conducting such tests or collecting samples as Ecology or the project coordinator may deem necessary; using a camera, sound recording, or other documentary type equipment to record work done pursuant to this Order; and verifying the data submitted to Ecology by the Respondent. Ecology shall provide reasonable notice before entering property unless an emergency prevents notice. Ecology shall split any samples taken during an inspection unless the Defendant fails to make available a representative for the purpose of splitting samples.

7. Community Relations: Ecology shall maintain the responsibility for community relations at this Site. However, Leichner Brothers Land Reclamation Corporation shall cooperate with Ecology and shall:
 - a. Prepare drafts of public notices and fact sheets at important stages of the remedial action, such as the submission of work plans and the completion of engineering design. Ecology will finalize (including editing if necessary) and distribute such fact sheets and prepare and distribute public notices of Ecology's presentations and meetings;
 - b. Notify and coordinate with Ecology's project coordinator prior to all press releases and fact sheet preparation, and before major meetings with the interested public and local government;
 - c. Participate in public presentations on the progress of Remedial Action at the Site. Participation may be through attendance at public meetings to assist in answering questions or as presenter;
 - d. In cooperation with Ecology, arrange and/or continue information repositories located at the Southwest Regional Office of Ecology. At a minimum, copies of all public notices, fact sheets, and press releases, all quality assured groundwater, surface water, soil, sediment, and air monitoring data; remedial action plans, supplemental remedial planning documents relating to performance of the remedial action required by this Order shall be promptly placed in these repositories.
8. Retention of Records: The Respondent shall preserve in a readily retrievable fashion, during the pendency of his Order and for ten (10) years from the date of completion of the work performed pursuant to this Order, all records, reports, documents, and underlying data in its possession relevant to this Order. Should any portion of the work performed hereunder to undertaken through contractors or agents of the Respondent, a record retention requirement meeting the terms of this paragraph shall be required of such contractors and/or agents.
9. Dispute Resolution: The Respondent may request Ecology to resolve only those factual or technical disputes which may arise during the implementation of this Order. Such request shall be in writing and directed to the signatory of the Order. Ecology resolution of the dispute shall be binding and final. The Respondent is not relieved of any requirement of this Order during the pendency of the dispute and remains responsible for timely compliance with the terms of the Order unless otherwise provided by Ecology in writing.
10. Reservation of Rights: Ecology reserves all rights to issue additional orders or take any action authorized by law in the event or upon the discovery of a release or threatened release of hazardous substances not addressed by this Order and/or upon discovery of any factors not known at the time of issuance of this Order or in order to abate an emergency.

In the event Ecology determines or concurs in a determination by another local, state, or federal agency that activities implementing or in noncompliance with this Order, or any other circumstances or activities, are creating or have the potential to create a danger to the health or welfare of the people on the site or in the surrounding area or to the environment, Ecology may order Respondent to stop further implementation of this Order for such period of time as needed to abate the danger.

11. Compliance with other Applicable Laws: All actions carried out by Defendant pursuant to this Order shall be done in accordance with all applicable federal, state, and local requirements, including requirements to obtain necessary state or local permits.

B. INVESTIGATIONS TO BE PERFORMED

The geologic information analyzed to date has established the presence of two aquifers at the eastern boundary of the landfill, which intermingle along the southern and western boundaries. One aquifer overlies the second aquifer; the uppermost aquifer is termed the upper alluvial formation, and the lower aquifer is termed the upper member of the Troutdale formation. Hydrogeological investigations to date have examined distinct points in each aquifer, at various locations on the terrain. It is the intent of this order to further investigate and define the physical properties of both aquifers, their respective water qualities, and the relationship between the upper alluvial aquifer and the lower (Upper Troutdale) aquifer. This investigation shall define the vertical and horizontal directions of the flows of each aquifer, the resultant path of their intermingling, and any apparent effects to flows due to the landfill's presence. Furthermore, it is intended that this order secure a comprehensive chemical profile, laterally and vertically, of the upper alluvial waters and the upper regions of the upper member of the Troutdale waters, upgradient of the landfill and downgradient of the landfill. It is also required that downgradient groundwater characterization be particularly sensitive to regions of known contamination such that both aquifers in those regions are fully examined, vertically and horizontally, to yield a rigorous analysis. All plans and subsequent work to accomplish these investigations are subject to Ecology's review and acceptance.

1. Vertical Investigations: The Leichner Brothers Land Reclamation Corporation shall accomplish the work described above using qualified personnel to install and sample additional monitoring wells, upgradient and downgradient of the landfilled wastes, to further characterize the physical, chemical, and biological properties of the groundwaters. Vertical wells shall investigate the waters of the upper aquifer at: 1) the phreatic surface; 2) an intermediate point, between the phreatic surface and lower boundary of the upper aquifers, and 3) at the lower boundary of the upper aquifer. The vertical investigation of the lower aquifer shall be accomplished by sampling upper member Troutdale groundwaters near the upper boundary of the Troutdale formation.

Where existing wells may be incorporated with the investigation, they shall be identified as to their roles in a vertical investigation.

2. Lateral Investigations: The vertical investigation described above shall be duplicated laterally throughout the terrain to satisfy Ecology that a sensitive and rigorous analysis of the upgradient and downgradient waters of both aquifers will be performed, and to fairly represent properties of their comingling and any influence of the landfill.
3. Pollution Abatement and Treatment: The Leichner Brothers Land Reclamation Corporation shall perform the necessary work to define the most secure methods of intercepting contaminated groundwaters downgradient of the landfill and delivering those fluids to a treatment facility. Work shall also be conducted to ascertain the most effective and environmentally sound process(es) for treating the contaminated fluids and rendering them fit for reintroduction to one or more environmental compartments (i.e., surface waters or groundwaters).

The recommended methods for capture and treatment of contaminated groundwaters shall forecast the physical, biological and chemical changes in the groundwater systems which will result from the abatement and treatment technologies, and ultimate fate of contaminants. The results shall be used to amend the risk analysis performed under the Remedial Investigation of Consent Order DE 86-S131.

4. Analyses and Frequencies: Water from the wells used for vertical and lateral characterization shall be tested for those constituents and properties specified in WAC 173-304-490, which include:
 - a. Temperature
 - b. Conductivity
 - c. pH
 - d. Chloride
 - e. Nitrate
 - f. Nitrite
 - g. Ammonia as Nitrogen
 - h. Sulfate
 - i. Dissolved Iron
 - j. Dissolved Zinc
 - k. Dissolved Manganese
 - l. Chemical Oxygen Demand (COD)
 - m. Total Organic Carbon (TOC)
 - n. Total Coliform Bacteria

The following parameters shall also be tested along with the above parameters:

- o. Alkalinity
- p. Total Priority Pollutant Metals
- q. Total Solids
- r. Volatile Organic Compounds
- s. Base-Neutral Extractables
- t. Total Dissolved Solids
- u. Gross Alpha Particle Activity
- v. Gross Beta Particle Activity
- w. Radium 226 and 228
- x. Turbidity
- y. Copper

If a treatment well is proposed, the above parameters shall be tested in the waters of said well, and the following parameters:

- z. Biochemical Oxygen Demand
- aa. Dissolved Oxygen

The entire list of analyses will be performed upon completion of all wells, in accordance with the Ecology approved plan, and monthly thereafter for the first three months following installation, excepting analyses u., v., and w. Analyses u., v., and w. shall be performed once, coincident with the initial performance of every other analysis. Additional performance of analyses u., v. and w. shall only be conducted upon notice by Ecology to Leichner Brothers Land Reclamation Corporation. Ecology shall reevaluate the sampling program at the close of the first quarter to determine if less frequent sampling is adequate for current monitoring.

C. REPORTING RESULTS AND PERFORMANCE CRITERIA

Leichner Brothers Land Reclamation Corporation shall submit four (4) copies of reports, plans and any pertinent material documenting the work described in this Order to Ecology at the following times:

1. No later than 45 calendar days from the date of this Order Leichner Brothers Land Reclamation Corporation shall submit plans and necessary documents describing construction, design, and operating details necessary to comply with the investigative intent of this order. The documents shall be delivered to Ecology's Southwest Regional Office.
2. Leichner Brothers Land Reclamation Corporation shall issue final documents for construction and implementation of the work within 15 calendar days following receipt of Ecology's comments and approval of Project Plans.
3. No later than 60 calendar days following receipt of Ecology's comments and approval of Project Plans the Leichner Brothers Land Reclamation Corporation shall have completed installation of all new vertical and lateral wells necessary for upgradient and downgradient characterization of groundwaters, of both aquifers.


4. Within 7 calendar days of completing the installation of all wells, the sampling program shall be initiated and results reported as soon as they are available.
5. No later than 180 calendar days after the date of this Order, the Leichner Brothers Land Reclamation Corporation shall submit the results of analyses of the physical, biological and chemical characteristics of the upgradient and downgradient groundwaters of the landfill. Recommendations regarding abatement and treatment of contaminated flows shall be included in the analysis.

V.
ENFORCEMENT

In the event the Respondent refuses, without sufficient cause, to comply with any term of this Order, this Order will be enforced as follows:

- A. The Attorney General will bring an action to enforce this Order in state or federal court.
- B. In any such action, the Respondent may be liable for up to three times the amount of any costs incurred by the State of Washington as a result of the refusal to comply.
- C. Additionally, in any such action, the Respondent may be liable for civil penalties of up to \$25,000 per day for each day the Respondent refuses to comply.
- D. Should Ecology conduct or provide for conducting the remedial action, the Attorney General will bring an action to recover all costs incurred by the state of such action.

DATED this 27th day of APRIL, 1989
at Olympia, Washington.



Michael A. Wilson
Southwest Region Supervisor
Hazardous Waste Investigations
and Cleanup