Georgia-Pacific West Corporation Chlor-Alkali Plant Cleanup

WASHINGTON STATE DEPARTMENT OF ECOLOGY

Remedial Investigation/Feasibility Study – Phase Two Proposed Agreed Order

The State of Washington Department of Ecology and the Georgia-Pacific Corporation have proposed, under terms of the Model Toxics Control Act (MTCA, Chapter 70.105D RCW), to enter into an Agreed Order. An Agreed Order is a legal document formalizing an agreement between Ecology and potentially liable persons (PLP's), to ensure that the proposed cleanup activities are conducted according to methods and standards prescribed under MTCA and other applicable laws and regulations.

Under the proposed Agreed Order, the corporation would conduct a remedial investigation and clean up feasibility study on the chlor-alkali plant area at the pulp and paper mill complex in Bellingham. After satisfactory completion of the cleanup, Ecology would release the Corporation from liability for specific contaminants that may subsequently be discovered at the chlor-alkali plant site.

Ecology invites you to evaluate the proposed Agreed Order. We welcome your comments about the proposal through September 13, 2002. The box at the right lists where to read a copy of the draft Agreed Order, as well as where to submit written or spoken comments.

Site Background

In 1965, Georgia-Pacific built a chlor-alkali plant in their Bellingham, Washington pulp and paper mill. The plant's function was to produce chlorine and sodium hydroxide (caustic) for use in bleaching and pulping wood fiber.

Process Description

Chlorine and caustic were produced at the plant using the deNora mercury cell process. Chlorine gas was generated electrolytically from a saturated solution of sodium chloride (brine). The mercury cells were rectangular steel troughs having a slight downward slope. Mercury flowed through the closed loop cell and decomposer, producing chlorine and caustic. The mercury and brine (NaCl) flowed parallel through the cell (the brine floated on top of the mercury.) In each cell, the mercury acted as a flowing cathode, while the anodes consisted of titanium metal.

Chlorine evolved at the anodes and was extracted from the cell as a gas. As the chlorine evolved from the brine, sodium amalgamated with the mercury, leaving the cell and traveling to a decomposer. Having passed through the cell, the brine was stripped of any residual chlorine and returned to the brine saturator to be restarted with salt.

The mercury/sodium amalgam was continuously treated in the decomposer. In the decomposer the mercury acted as an anode, liberating sodium which reacted with water to form sodium hydroxide (caustic). Hydrogen gas was liberated at the cathode. The mercury was then pumped back into the cell to repeat the process. At the inlet and outlet ends of the cells the mercury was covered with a water bath to prevent volatilization at these points. The entire cell was kept at a negative pressure to prevent the loss of chlorine gas.

Continued on page 2

August 2002

PUBLIC COMMENT PERIOD

August 15, 2002 to September 13, 2002

RECORD YOUR COMMENTS ABOUT THE DRAFT AGREED ORDER AT A PUBLIC MEETING:

September 5, 2002 7:00 PM
Whatcom Community College
Heiner Building Auditorium
237 West Kellogg Road
Bellingham, WA

SEND YOUR WRITTEN COMMENTS ABOUT THE DRAFT AGREED ORDER TO:

Paul Skyllingstad
Department of Ecology
PO Box 47706
Olympia, WA 98504-7706
(360) 407-6949

E-mail: psky461@ecy.wa.gov

INFORMATION REPOSITORIES
A copy of the proposed Agreed Order is available for viewing at the following locations:

Department of Ecology
Industrial Section
300 Desmond Drive
Lacey, WA
(360) 407-6916

Department of Ecology
Northwest Regional Office
3190 160th Ave. SE
Bellevue, WA 98008-5452

Department of Ecology
Bellingham Field Office
1204 Railroad, Suite 200
Bellingham, WA 98225

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Plant Closure and Cleanup

Georgia-Pacific West Corporation closed the chlor-alkali plant during the summer of 1999. Planned remediation of the plant site was to occur in two phases. The first phase was conducted under an Ecology Agreed Order (DE TC99 I035) governing the shut down, decommissioning, and demolition of the plant's processing machinery and building. That phase of the project is complete.

The current proposed Agreed Order, phase two, will be used to direct a remedial investigation and feasibility study (RI/FS). The RI/FS will include sampling and testing of the soils and groundwater on the site to identify the types and extent of contamination. The feasibility study will consider an array of containment and treatment methods and determine the best cleanup scenario for the property.

What Will Be Done in Phase Two?

In 1994 Georgia-Pacific Corporation submitted an Independent Remedial Investigation and Feasibility Study (RI/FS) for the chlor-alkali plant site. The 1994 RI/FS was completed with out Ecology review and input. The phase two proposed Agreed Order would have Ecology review and would require Georgia-Pacific to take the following actions at the plant site to complete the 1994 RI/FS:

- Submit, within 45 days, a sampling plan that completes characterization of the site. After Ecology approval, complete the sampling and use final soil and groundwater analysis to determine both the area and vertical extent of mercury contamination in soil at the site.
- Submit, within 45 days, a sampling plan that initiates further investigation of the ChemFix mercury sludge disposal area.
- Develop a sampling and testing protocol to determine whether mercury could leach from the solidified ChemFix sludge. Use the new protocol to sample the ChemFix sludge. Report sampling results.
- Submit, within six months of the completion of the sampling programs and Ecology's approval of the results, a proposed feasibility study to finish the cleanup of the site.

What Happens Next?

Ecology will consider all public comment about this proposed Agreed Order that is received during the formal comment period, and respond in a written and published report called a "Responsiveness Summary". If necessary, based upon the comments received, Ecology may modify the Agreed Order before issuing it. The work required in the Agreed Order should be completed in approximately nine months.

Final cleanup of the site will occur after Georgia-Pacific submits a remedial investigation and feasibility study that Ecology can approve; and the parties draft and sign a Consent Decree. An additional formal public comment opportunity will occur after the Agreed Order for the RI/FS has been satisfied and before Ecology issues the Consent Decree for final cleanup.

Ecology Wants Your Comments!

You are invited to view and comment on the proposed Agreed Order, through September 13, 2002. The public comment period provides an opportunity to present your ideas and comments on the public record, and to bring them to Ecology's attention. The box on page one details where the documents can be found and how to submit comments.

You may also arrange to see the file of supporting documents that informed the drafting of this proposed Agreed Order by contacting Paul Skyllingstad at Ecology's headquarters building in Lacey, (360) 407-6949.

A public meeting is scheduled at Whatcom Community College's Heiner Auditorium in Bellingham, on September 5, 2002 at 7:00 PM. This will be an opportunity to learn about the site, hear a description of the remedial investigation / feasibility studies proposed for the chlorine plant site, and ask questions; you may also voice your evaluation of the proposal, for the public record.

Please submit your written comments by September 13, 2002, to Paul Skyllingstad at the Ecology address listed on page one. Ecology will review and respond to all public comments received during the formal comment period, and will revise the Agreed Order—based upon public comment—if appropriate.

Please share this information with any individuals or groups you think should be informed about the site. Updates of site activities will be provided to those who submit comments or who ask to be included on the site mailing list.

If you have special accommodation needs, please call (360) 407-6300 or (360) 407-6306 (TDD).