State of Oregon
DEQ Department of Environmental Quality

Memorandum

To: **Jeannette Acomb**
Hazardous Waste Operations and Permit Program Coordinator

From: **Fredrick Moore**
Eastern Region Hazardous Waste Permit Writer

Date: **July 3, 2024**

Subject: **Proposal to Approve the Boeing Portland Facility a Return for Anticipated Use [RAU] RCRAInfo Database Milestone**
ORD 054 964 481 ● ECSI 13

On May 2, 2024, you, Spencer Bohaboy (Eastern Region hazardous waste permit writer), Ryan Peterson (HW inspector) and I visited the Boeing Portland facility. One reason for the visit was to acquaint you, Spencer and Ryan with this hazardous waste facility. Another reason was to see the current corrective action condition of the site and determine if the RCRAInfo database data milestone Return for Anticipated Use (CA800YE) is warranted.

My opinion is that the site meets the RAU requirements for the reasons below.

BACKGROUND

The Boeing Company manufactures aircraft components and subassemblies at its Portland facility. Boeing has operated and leased portions of the facility since 1974. Prior to Boeing's occupation of the plant, the facility was operated by other manufacturing companies dating back to 1964. Presently the facility encompasses 75 acres. During manufacturing operations at the facility, liquid wastes were generated from parts cleaning, metal machining, metal plating and painting operations. In addition, numerous spills and releases from containers and equipment during facility operations have resulted in chlorinated solvent and cooling oil emulsion contamination of soil and groundwater.

In 1986 Boeing installed groundwater monitoring wells around a RCRA-regulated surface impoundment. Monitoring results showed high concentrations of solvents. As a result of the discovery of groundwater contamination, Boeing entered into a consent order with EPA and the Oregon Department of Environmental Quality under Section 3008(h) of RCRA. The order required Boeing Portland to determine and evaluate the nature and extent of releases of hazardous constituents at the facility.

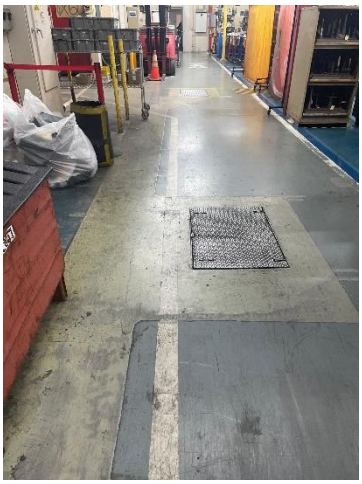
In January 1994, EPA and Boeing entered into a second RCRA consent order which replaced the 1986 consent order. This order set requirements for completing site investigations, developing final corrective action alternatives and then implement the cleanup selected by EPA.

In December 1996, DEQ used its state authority and issued a Record of Decision which selected cleanup actions for groundwater. In October 2007 DEQ became the lead and sole agency issuing a cleanup order conducting continuing corrective action.

VISIT TO THE PORTLAND BOEING SITE

Once through security, we met Boeing representative John Rusoff at Building 85-120. We explained that we were visiting the site to see how operational activities were, or were not, impacted by corrective action activities. If corrective action activities were not impacting operational activities then the site would likely be eligible for a Ready for Anticipated Use determination. A RAU is a cleanup milestone in the EPA RCRAInfo database that indicates corrective action is not completed but the site is operating without corrective action physical hindrance. We began on foot to tour the site and the following pictures were taken by Mr. Rusoff. Photograph locations are indicated on the attached site plan.

The first stop was at groundwater extraction well E-4. The extraction well is located next to the north fence. This photo shows that the well is well vaulted, connected to the groundwater treatment system and is underground at this location. It is unlikely that normal operations will compromise this well.



We then took a shortcut through a building. Soil vapor extraction is conducted underneath this building. This picture shows a vault where a SVE well is located and can be accessed and maintained. The grate and pathway can support walking and vehicular traffic.

This photo is taken at groundwater extraction well E-16. This well is alongside a site roadway.

Groundwater is extracted and sent to a small building where the treatment system is housed. The groundwater treatment system is characterized as a shallow tray air stripper system. This photo shows the system being utilized.

This photo shows a vacuum pump that helps drive the soil vapor remediation system. The pump is located within a building and this photo shows the pump is located alongside a wall and to the side of operational traffic. The pump is on a skid showing that pump is mobile and can be moved if need be.

This photo shows the building that houses the stripping tower of the shallow tray air stripper system.

This photo shows the treated groundwater discharge pipe from the shallow tray stripper system. The clean treated groundwater is discharged into the Gresham stormwater system and eventually flows to the Gresham wastewater treatment plant with final discharge to the Columbia River.

This photo shows the vault for groundwater extraction well E-15. This well is in a general industrial area of the site and shows durable construction.

RCRA CORRECTIVE ACTION TO DATE

The following table summarizes the major RCRA corrective action milestones to date:

RCRAInfo Code	Milestone	Date
CA772EP	Institutional Controls Established	1/27/2006
CA550RC	Remedy Construction – Remedy Constructed	9/3/2002
CA725YE	Human Exposures Controlled Determination – Yes	3/1/1999
CA750YE	Release to Groundwater Controlled Determination – Yes	3/1/1999

READY FOR ANTICIPATED USE EVALUATION

To achieve the RAU milestone three conditions must be met.

1. The facility has met the Human Exposures Environmental Indicator (CA725YE) and the event has been entered into RCRAInfo.

   Yes, this condition is met. See table above.

2. Cleanup goals have been achieved for media that may affect current and reasonably anticipated future land uses of the facility so there are no unacceptable risks. For this condition, the DEQ Cleanup project manager offers the following:

   Oregon DEQ is comfortable with Boeing site controls and remediation progress, in part due to the following management tools. Boeing has conducted investigations and implemented corrective measures to address volatile organic compounds in soil and groundwater since 1986. The Oregon DEQ maintains an Order on Consent issued to Boeing (DEQ 2008) to perform remedial actions as specified in the US EPA Order on Consent (EPA 1994), the Final Decision (EPA 1997), and the Statement of Basis (EPA 1997). In addition to the Consent Order-driven corrective measures, bioremediation and soil vapor extraction are being implemented to optimize remedy performance and decrease the remedy time frame.

   The site is zoned industrial and the current and future anticipated site use is the manufacture of commercial aircraft components. Remediation of groundwater is generally below ground and does not restrict site uses. A shallow tray air stripper groundwater treatment system is in use at the site. There are no anticipated unacceptable risks to site workers from VOCs or vapor intrusion into buildings with remediation systems in use. Piping

runs and utilities related to site remediation are located below ground.[1]

Yes, this condition is met.

3. All institutional or other controls, identified as part of a response action or remedy as required to help ensure long-term protection, are in place.

   Yes, this condition is met by the DEQ consent order. See the DEQ Cleanup project manager's above statement.

CONCLUSION

Boeing Portland's corrective action began with a RCRA 3008(h) order. The EPA RCRA oversight, review and enforcement transferred to the DEQ Cleanup program under a consent order. All this corrective action continued while the Boeing Portland facility continued to manufacture aircraft components. It is likely that the Boeing Portland facility for some time now qualified for an RAU milestone determination. Regardless, due to the May 2024 site visit, review of recent documents, knowing that site has a remedy constructed determination and input from the DEQ Cleanup Program it is my opinion that the facility merits an CA800YE determination in the RCRAInfo database.

Copies to: Kenneth Thiessen, DEQ Cleanup Project Manager
John Rusoff, Boeing Portland

Attachment

Version 3.0

[1] Personal Communication: Email from Kenneth Thiessen to Fredrick Moore, June 7, 2024