



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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March 20, 2018

Steve Shestag
Director, EHS Environment
The Boeing Company
PO Box 3707, M/C 9U4-08
Seattle, WA 98124-2207

Re: Preliminary Determination of Liability for Release of Hazardous Substances at the following Contaminated Site:

- **Site Name:** Boeing Developmental Center
- **Site Address:** 9725 East Marginal Way South
- **RCRA Site ID:** WAD 093639946
- **Cleanup Site ID:** 5059
- **Facility/Site ID:** 2101
- **County Assessor's Parcel Number(s):** See table below

Dear Mr. Shestag:

Based on credible evidence, the Department of Ecology (Ecology) is proposing to find The Boeing Company liable under the Model Toxics Control Act (MTCA), Chapter 70.105D RCW, for the release of hazardous substances at the Boeing Developmental Center facility (Site). Any person whom Ecology finds, based on credible evidence, to be liable is known under MTCA as a "potentially liable person" or "PLP."

This letter identifies the basis for Ecology's proposed finding and your opportunity to respond to that finding. This letter also describes the scope of your potential liability and next steps in the cleanup process at the Site.

Proposed Finding of Liability

Ecology is proposing to find The Boeing Company liable under RCW 70.105D.040 for the release of hazardous substances at the Site. This proposed finding is based on the following evidence:

1. The Boeing Company is an owner or operator of property adjacent to the Lower Duwamish Waterway in Seattle, Washington. The property is referred to as the Boeing Developmental Center and includes the following parcels:



Parcel Number	Current Owner/Lessee
000340-0018	The Boeing Company
562420-1032, -1036, -1038	The Boeing Company
042304-9183	The Boeing Company
562420-0990, -0980, 0985	Desimone Trusts, leased to The Boeing Company
562420-0992	City of Seattle, leased to The Boeing Company
000340-0028	D&T Entérprises, leased to The Boeing Company
000340-0023, -0026, -0048; 042304-9016	East Marginal Associates, leased to The Boeing Company

The roughly 164 acre property is almost entirely non-permeable and drains through a system of privately owned and maintained storm drain lines to the Lower Duwamish Waterway.

2. Remediation and monitoring has been ongoing for more than 10 years at three SWMUs and one AOC located on the Boeing Developmental Center property. Results of that monitoring indicate there has been a release to the environment of a hazardous substance at a facility for which Boeing is the owner or operator – which is enough to bring Boeing into PLP status. A semiannual groundwater monitoring event occurred in November 2017 at SWMU-17 and SWMU-20. The results of this monitoring showed groundwater concentrations at one or more monitoring wells exceeded the relevant MTCA criteria for vinyl chloride, trichloroethene and arsenic (Reference 1). This November 2017 semiannual groundwater monitoring report also showed TPH-G and BTEX present in groundwater near AOC-05. In addition, Boeing is sampling storm water solids annually in the South Storm Drain system and Lower Duwamish Waterway sediment near the South Storm Drain System outfall. The 2017 annual sampling results showed that PCBs in the samples exceed the relevant MTCA criterion (Reference 2). The South Storm Drain System is located south of Building 9-101 and is part of the site-wide storm sewer system identified as SWMU-43 in a RCRA Facility Assessment report (Reference 3).
3. All of the previously listed contaminants that were detected on the Boeing Developmental Center property are present at concentrations above regulatory levels and pose a threat to human health and the environment.

Opportunity to Respond to Proposed Finding of Liability

In response to Ecology's proposed finding of liability, you may either:

1. Accept your status as a PLP without admitting liability and expedite the process through a voluntary waiver of your right to comment. This may be accomplished by signing and returning the enclosed form or by sending a letter containing similar information to Ecology; or
2. Challenge your status as a PLP by submitting written comments to Ecology within thirty (30) calendar days of the date you receive this letter; or

3. Choose not to comment on your status as a PLP.

Please submit your waiver or written comments to the following address:

Byung Maeng
Department of Ecology/HWTR
3190 160th Ave SE
Bellevue, WA 98008

After reviewing any comments submitted, or after 30 days if no response has been received, Ecology will make a final determination regarding your status as a PLP and provide you with written notice of that determination.

Identification of Other Potentially Liable Persons

If you are aware of any other persons who may be liable for the release of hazardous substances at the Site, Ecology encourages you to provide us with their identities and the reason you believe they are liable. Ecology also suggests you contact these other persons to discuss how you can jointly work together to most efficiently clean up the Site.

Responsibility and Scope of Potential Liability

Ecology may either conduct or require PLPs to conduct remedial actions to investigate and clean up the release of hazardous substances at a site. PLPs are encouraged to initiate discussions and negotiations with Ecology and the Office of the Attorney General that may lead to an agreement on the remedial action to be conducted.

Each liable person is strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release of hazardous substances at a site. If Ecology incurs remedial action costs in connection with the investigation or cleanup of real property and those costs are not reimbursed, then Ecology has the authority under RCW 70.105D.055 to file a lien against that real property to recover those costs.

Next Steps in Cleanup Process

In response to the release of hazardous substances at the Site, Ecology intends to conduct the following action under RCRA and MTCA:

- Initiate discussions for a Corrective Action Agreed Order (AO) between Ecology, The Boeing Company, and potentially other PLPs. The AO will require that Boeing conduct a Remedial Investigation/Feasibility Study and prepare a preliminary draft Cleanup Action Plan. The AO will also allow for potential Interim Actions and/or studies to determine the nature and extent of contamination and evaluate remedial actions.

For a description of the process for cleaning up a contaminated site under MTCA, please refer to the enclosed fact sheet.

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Ecology's policy is to work cooperatively with PLPs to accomplish the prompt and effective cleanup of contaminated sites. Please note that your cooperation in planning or conducting remedial actions at the Site is not an admission of guilt or liability.

Contact Information

If you have any questions regarding this letter or if you would like additional information regarding the cleanup of contaminated sites, please contact Byung Maeng of my staff at (425) 649-7253 or bmae461@ecy.wa.gov. Your attorney may contact the Assistant Attorney General assigned to this site, Ivy Anderson, at (360) 586-4619 or ivya@atg.wa.gov. Thank you for your cooperation.

Sincerely,



Raman Iyer
Section Manager
Hazardous Waste and Toxics Reduction Program

References (3):

1. November 2017 Semiannual Groundwater Monitoring Report, Boeing Developmental Center, Tukwila, Washington, prepared by Landau Associates
2. 2016 and 2017 Annual Sampling Report, South Storm Drain System and Source Tracing within the Boeing Developmental Center, dated February 2018, prepared by CALIBRE Systems
3. RCRA Facility Assessment Report for Boeing Developmental Center, Tukwila, Washington, and Boeing Military Flight Center, Seattle, Washington, dated September 1994, prepared by Science Applications International Corporation Software

Enclosures (2)

1. Focus: Model Toxics Control Act Cleanup Regulation: Process for Cleanup of Hazardous Waste Sites (Pub. No. #94-129)
2. Notice of Waiver form

By certified mail: 9171 9690 0935 0169 7333 89

cc: Ivy Anderson, Ecology, AAG
Robert Warren, Ecology TCP-NWRO
Mark Adams, Ecology TCP-NWRO
Katie Kulha, Ecology TCP-NWRO
Byung Maeng, Ecology HWTR-NWRO



Focus

Model Toxics Control Act Cleanup Regulation: Process for Cleanup of Hazardous Waste Sites

In March of 1989, an innovative, citizen-mandated toxic waste cleanup law went into effect in Washington, changing the way hazardous waste sites in this state are cleaned up. Passed by voters as Initiative 97, this law is known as the Model Toxics Control Act, chapter 70.105D RCW. This fact sheet provides a brief overview of the process for the cleanup of contaminated sites under the rules Ecology adopted to implement that Act (chapter 173-340 WAC).

How the Law Works

The cleanup of hazardous waste sites is complex and expensive. In an effort to avoid the confusion and delays associated with the federal Superfund program, the Model Toxics Control Act is designed to be as streamlined as possible. It sets strict cleanup standards to ensure that the quality of cleanup and protection of human health and the environment are not compromised. At the same time, the rules that guide cleanup under the Act have built-in flexibility to allow cleanups to be addressed on a site-specific basis.

The Model Toxics Control Act funds hazardous waste cleanup through a tax on the wholesale value of hazardous substances. The tax is imposed on the first in-state possessor of hazardous substances at the rate of 0.7 percent, or \$7 per \$1,000. Since its passage in 1988, the Act has guided the cleanup of thousands of hazardous waste sites that dot the Washington landscape. The Washington State Department of Ecology's Toxic Cleanup Program ensures that these sites are investigated and cleaned up.

What Constitutes a Hazardous Waste Site?

Any owner or operator who has information that a hazardous substance has been released to the environment at the owner or operator's facility and may be a threat to human health or the environment must report this information to the Department of Ecology (Ecology). If an "initial investigation" by Ecology confirms further action (such as testing or cleanup) may be necessary, the facility is entered onto either Ecology's "Integrated Site Information System" database or "Leaking Underground Storage Tank" database. These are computerized databases used to track progress on all confirmed or suspected contaminated sites in Washington State. All confirmed sites that have not been already voluntarily cleaned up are ranked and placed on the state "Hazardous Sites List." Owners, operators, and other persons known to be potentially liable for the cleanup of the site will receive an "Early Notice Letter" from Ecology notifying them that their site is suspected of needing cleanup, and that it is Ecology's policy to work cooperatively with them to accomplish prompt and effective cleanup.

Who is Responsible for Cleanup?

Any past or present relationship with a contaminated site may result in liability. Under the Model Toxics Control Act a potentially liable person can be:

- A current or past facility owner or operator.
- Anyone who arranged for disposal or treatment of hazardous substances at the site.
- Anyone who transported hazardous substances for disposal or treatment at a contaminated site, unless the facility could legally receive the hazardous materials at the time of transport.
- Anyone who sells a hazardous substance with written instructions for its use, and abiding by the instructions results in contamination.

In situations where there is more than one potentially liable person, each person is jointly and severally liable for cleanup at the site. That means each person can be held liable for the entire cost of cleanup. In cases where there is more than one potentially liable person at a site, Ecology encourages these persons to get together to negotiate how the cost of cleanup will be shared among all potentially liable persons.

Ecology must notify anyone it knows may be a “potentially liable person” and allow an opportunity for comment before making any further determination on that person’s liability. The comment period may be waived at the potentially liable person’s request or if Ecology has to conduct emergency cleanup at the site.

Achieving Cleanups through Cooperation

Although Ecology has the legal authority to order a liable party to clean up, the department prefers to achieve cleanups cooperatively. Ecology believes that a non-adversarial relationship with potentially liable persons improves the prospect for prompt and efficient cleanup. The rules implementing the Model Toxics Control Act, which were developed by Ecology in consultation with the Science Advisory Board (created by the Act), and representatives from citizen, environmental and business groups, and government agencies, are designed to:

- Encourage independent cleanups initiated by potentially liable persons, thus providing for quicker cleanups with less legal complexity.
- Encourage an open process for the public, local government and liable parties to discuss cleanup options and community concerns.
- Facilitate cooperative cleanup agreements rather than Ecology-initiated orders. *Ecology can, and does, however use enforcement tools in emergencies or with recalcitrant potentially liable persons.*

What is the Potentially Liable Person’s Role in Cleanup?

The Model Toxics Control Act requires potentially liable persons to assume responsibility for cleaning up contaminated sites. For this reason, Ecology does not usually conduct the actual cleanup when a potentially liable person can be identified. Rather, Ecology oversees the cleanup of sites to ensure that investigations, public involvement and actual cleanup and monitoring are done appropriately. Ecology’s costs of this oversight are required to be paid by the liable party.

When contamination is confirmed at the site, the owner or operator may decide to proceed with cleanup without Ecology assistance or approval. Such “independent cleanups” are

allowed under the Model Toxics Control Act under most circumstances, but must be reported to Ecology, and are done at the owner's or operator's own risk. Ecology may require additional cleanup work at these sites to bring them into compliance with the state cleanup standards. Most cleanups in Washington are done independently.

Other than local governments, potentially liable persons conducting independent cleanups do not have access to financial assistance from Ecology. Those who plan to seek contributions from other persons to help pay for cleanup costs need to be sure their cleanup is "the substantial equivalent of a department-conducted or department-supervised remedial action." Ecology has provided guidance on how to meet this requirement in WAC 173-340-545. Persons interested in pursuing a private contribution action on an independent cleanup should carefully review this guidance prior to conducting site work.

Working with Ecology to Achieve Cleanup

Ecology and potentially liable persons often work cooperatively to reach cleanup solutions. Options for working with Ecology include formal agreements such as consent decrees and agreed orders, and seeking technical assistance through the Voluntary Cleanup Program. These mechanisms allow Ecology to take an active role in cleanup, providing help to potentially liable persons and minimizing costs by ensuring the job meets state standards the first time. This also minimizes the possibility that additional cleanup will be required in the future – providing significant assurances to investors and lenders.

Here is a summary of the most common mechanisms used by Ecology:

- **Voluntary Cleanup Program:** Many property owners choose to cleanup their sites independent of Ecology oversight. This allows many smaller or less complex sites to be cleaned up quickly without having to go through a formal process. A disadvantage to property owners is that Ecology does not approve the cleanup. This can present a problem to property owners who need state approval of the cleanup to satisfy a buyer or lender.

One option to the property owner wanting to conduct an independent cleanup yet still receive some feedback from Ecology is to request a technical consultation through Ecology's Voluntary Cleanup Program. Under this voluntary program, the property owner submits a cleanup report with a fee to cover Ecology's review costs. Based on the review, Ecology either issues a letter stating that the site needs "No Further Action" or identifies what additional work is needed. Since Ecology is not directly involved in the site cleanup work, the level of certainty in Ecology's response is less than in a consent decree or agreed order. However, many persons have found a "No Further Action" letter to be sufficient for their needs, making the Voluntary Cleanup Program a popular option.
- **Consent Decrees:** A consent decree is a formal legal agreement filed in court. The work requirements in the decree and the terms under which it must be done are negotiated and agreed to by the potentially liable person, Ecology and the state Attorney General's office. Before consent decrees can become final, they must undergo a public review and comment period that typically includes a public hearing. Consent decrees protect the potentially liable person from being sued for "contribution" by other persons that incur cleanup expenses at the site while facilitating any contribution claims against the other persons when they are responsible for part of the cleanup costs. Sites cleaned up under a consent decree are also exempt from having to obtain certain state and local permits that could delay the cleanup.

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- **De Minimus Consent Decree:** Landowners whose contribution to site contamination is “insignificant in amount and toxicity” may be eligible for a de minimus consent decree. In these decrees, landowner typically settle their liability by paying for some of the cleanup instead of actually conducting the cleanup work. Ecology usually accepts a de minimus settlement proposal only if the landowner is affiliated with a larger site cleanup that Ecology is currently working on.
 - **Prospective Purchaser Consent Decree:** A consent decree may also be available for a “prospective purchaser” of contaminated property. In this situation, a person who is not already liable for cleanup and wishes to purchase a cleanup site for redevelopment or reuse may apply to negotiate a prospective purchaser consent decree. The applicant must show, among other things, that they will contribute substantial new resources towards the cleanup. Cleanups that also have a substantial public benefit will receive a higher priority for prospective purchaser agreements. If the application is accepted, the requirements for cleanup are negotiated and specified in a consent decree so that the purchaser can better estimate the cost of cleanup before buying the land.
 - **Agreed Orders:** Unlike a consent decree, an agreed order is not filed in court and is not a settlement. Rather, it is a legally binding administrative order issued by Ecology and agreed to by the potentially liable person. Agreed orders are available for remedial investigations, feasibility studies, and final cleanups. An agreed order describes the site activities that must occur for Ecology to agree not to take enforcement action for that phase of work. As with consent decrees, agreed orders are subject to public review and offer the advantage of facilitating contribution claims against other persons and exempting cleanup work from obtaining certain state and local permits.

Ecology-Initiated Cleanup Orders

Administrative orders requiring cleanup activities without an agreement with a potentially liable person are known as **enforcement orders**. These orders are usually issued to a potentially liable person when Ecology believes a cleanup solution cannot be achieved expeditiously through negotiation or if an emergency exists. If the responsible party fails to comply with an enforcement order, Ecology can clean up the site and later recover costs from the responsible person(s) at up to three times the amount spent. The state Attorney General’s Office may also seek a fine of up to \$25,000 a day for violating an order. Enforcement orders are subject to public notification.

Financial Assistance

Each year, Ecology provides millions of dollars in grants to local governments to help pay for the cost of site cleanup. In general, such grants are available only for sites where the cleanup work is being done under an order or decree. Ecology can also provide grants to local governments to help defray the cost of replacing a public water supply well contaminated by a hazardous waste site. Grants are also available for local citizen groups and neighborhoods affected by contaminated sites to facilitate public review of the cleanup. See Chapter 173-322 WAC for additional information on grants to local governments and Chapter 173-321 WAC for additional information on public participation grants.

Public Involvement

Public notices are required on all agreed orders, consent decrees, and enforcement orders. Public notification is also required for all Ecology-conducted remedial actions.

Ecology's Site Register is a widely used means of providing information about cleanup efforts to the public and is one way of assisting community involvement. The Site Register is published every two weeks to inform citizens of public meetings and comment periods, discussions or negotiations of legal agreements, and other cleanup activities. The Site Register can be accessed on the Internet at: www.ecy.wa.gov/programs/tcp/pub_inv/pub_inv2.html.

How Sites are Cleaned Up

The rules describing the cleanup process at a hazardous waste site are in chapter 173-340 WAC. The following is a general description of the steps taken during the cleanup of an average hazardous waste site. Consult the rules for the specific requirements for each step in the cleanup process.

1. Site Discovery: Sites where contamination is found must be reported to Ecology's Toxics Cleanup Program within 90 days of discovery, unless it involves a release of hazardous materials from an underground storage tank system. In that case, the site discovery must be reported to Ecology within 24 hours. At this point, potentially liable persons may choose to conduct independent cleanup without assistance from the department, but cleanup results must be reported to Ecology.

2. Initial Investigation: Ecology is required to conduct an initial investigation of the site within 90 days of receiving a site discovery report. Based on information obtained about the site, a decision must be made within 30 days to determine if the site requires additional investigation, emergency cleanup, or no further action. If further action is required under the Model Toxics Control Act, Ecology sends early notice letters to owners, operators and other potentially liable persons inviting them to work cooperatively with the department.

4. Hazard Ranking: The Model Toxics Control Act requires that sites be ranked according to the relative health and environmental risk each site poses. Working with the Science Advisory Board, Ecology created the Washington Ranking Method to categorize sites using data from site hazard assessments. Sites are ranked on a scale of 1 to 5. A score of 1 represents the highest level of risk and 5 the lowest. Ranked sites are placed on the state Hazardous Sites List.

3. Site Hazard Assessment: A site hazard assessment is conducted to confirm the presence of hazardous substances and to determine the relative risk the site poses to human health and the environment.

5. Remedial Investigation/Feasibility Study: A remedial investigation and feasibility study is conducted to define the extent and magnitude of contamination at the site. Potential impacts on human health and the environment and alternative cleanup technologies are also evaluated in this study. Sites being cleaned up by Ecology or by potentially liable persons under a consent decree, agreed order or enforcement order are required to provide for a 30 day public review before finalizing the report.

6. Selection of Cleanup Action: Using information gathered during the study, a cleanup action plan is developed. The plan identifies preferred cleanup methods and specifies cleanup standards and other requirements at the site. A draft of the plan is subject to public review and comment before it is finalized.

7. Site Cleanup: Actual cleanup begins when the cleanup action plan is implemented. This includes design, construction, operation and monitoring of cleanup actions. A site may be taken off the Hazardous Sites List after cleanup is completed and Ecology determines cleanup standards have been met.

The Boeing Company
PO Box 3707, M/C 9U4-08
Seattle, WA 98124-2207

Pursuant to WAC 173-340-500, I _____, a duly authorized representative of The Boeing Company, do hereby waive the right to the thirty (30) day notice and comment period described in WAC 173-340-500(3) and accept status of The Boeing Company as a Potentially Liable Person at the following contaminated site:

- Site Name: Boeing Developmental Center
- Site Address: 9725 East Marginal Way South, Tukwila, Washington
- RCRA Site ID: WAD 093639946
- Cleanup Site ID: 5059
- Facility/Site ID: 2101
- King County Assessor's Parcel Number(s): 562420-1032; 562420-1036; 562420-1038; 562420-0990; 562420-0980; 562420-0985; 562420-0992; 000340-0018; 000340-0028; 000340-0023; 000340-0026; 000340-0048; 042304-9016; 042304-9183

By waiving this right, The Boeing Company makes no admission of liability.

Signature

Date

Relation to the Site: _____

