

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

IN THE MATTER OF REMEDIAL ACTION BY:)
)
The Boeing Company) SECOND AMENDMENT TO
Boeing Commercial Airplanes – Everett Plant) AGREED ORDER
3003 West Casino Road) NO. DE 96HS-N274
Everett, WA 98203)

To: The Boeing Company
c/o Kirk J. Thomson
Company Environmental Director
33-08 Building MC 7A-UU
2610 160th SE
Bellevue, WA 98008

I.
INTRODUCTION

Agreed Order NO. DE 96HS-N274 (Original Order), entered into by the Department of Ecology (Ecology) and The Boeing Company (Boeing) on February 12, 1997, as amended on October 22, 1998 (First Amendment), requires that Boeing perform a Remedial Investigation and Feasibility Study (RI/FS) plus certain interim actions at the Boeing Commercial Airplanes, Everett Plant ("Facility").

Subsequent to entering into the Original Order and First Amendment, additional releases of hazardous substance, hazardous waste, dangerous constituent and/or dangerous waste constituent at and/or from the Facility were discovered, including trichloroethylene (TCE) in groundwater within the Esperance Sand Aquifer and Powder Mill Creek, and an ongoing release of polychlorinated biphenyls (PCBs) to Powder Mill Creek and associated wetlands.

This Second Amendment to Agreed Order No. DE 96HS-N274 (Second Amendment) requires additional remedial investigation concerning: (1) the extent and/or migration of TCE at and/or from the Facility, within the Esperance Sand Aquifer and Powder Mill Creek; and (2) the extent and/or migration of PCBs, metals, and polyaromatic hydrocarbons (PAHs) at and/or from the Facility, in the sediments and surface water of Powder Mill Creek, and associated wetlands. Further, this Second Amendment requires additional interim actions to reduce the extent and impact of PCBs that would otherwise continue to be released to Powder Mill Creek and associated wetlands while Boeing removes PCB-contaminated joint compound material from the Facility, and prior to implementation of a final cleanup action that addresses this PCB release.

II. **JURISDICTION**

This amendment to Agreed Order NO. DE 96HS-N274 (Original Order) is issued pursuant to the authority of RCW 70.105D.050(1) and WAC 173-303-646(3)(a).

III. **FINDINGS OF FACT**

The Department of Ecology (hereinafter "Ecology") makes the following Findings of Fact in addition to those Findings set forth in the Original Order:

1. TCE Contamination.

Boeing first sampled the Esperance Sand Aquifer underlying Powder Mill Gulch on May 2003 under Ecology's direction. This sampling event showed vinyl chloride contamination above MTCA Method B cleanup levels for potable groundwater and TCE

concentrations below MTCA B cleanup levels for potable groundwater. Subsequent groundwater remedial investigations have revealed elevated concentrations of TCE, vinyl chloride, and 1,1-dichloroethene within the Esperance Sand Aquifer that are above MTCA Method B cleanup levels for potable groundwater. In addition, TCE has been found in Powder Mill Creek surface water below MTCA Method B screening levels. Boeing and Ecology have not yet evaluated and agreed upon appropriate cleanup levels for the Facility's RCRA Corrective Action final remedy. The MTCA Method B cleanup levels referenced above are screening levels that require Boeing to perform additional remedial investigation of these contaminants at the Facility.

2. PCB Contamination.

In compliance with the Toxic Substances Control Act, the Facility is currently removing PCB-contaminated joint compound material from the Flightline, which is located on the southwest side of the Facility. The removal schedule, as approved by the U.S. Environmental Protection Agency, Region 10, is currently scheduled to be completed no later than October 31, 2006.

Elevated concentrations of PCB-contaminated joint compound still remain at the Facility Flightline. Investigative data indicates that PCBs are migrating from the Flightline to other areas, including Powder Mill Creek. The areas and media showing elevated concentrations of PCBs are: (1) the paved detention basin and sedimentation basin in the Facility's storm water treatment system; (2) the concrete stilling basin spillway at the outlet of the detention basin; (3) the peat filter portion of the storm water treatment system; (4) the sediment in the upper and lower Powder Mill Gulch associated wetlands; (5) the sediment in Powder Mill Creek; and (6) the surface water of Powder Mill Creek. Further, elevated concentrations of chromium, lead, barium, zinc,

copper, pyrene, fluoranthene, benzo(a)pyrene and benzo(b)fluoranthene were detected in solids collected from the detention and sedimentation basins.

4. This Second Amendment to Agreed Order No. DE 96HS-N274 will, at a minimum, be subject to concurrent public notice as required by WAC 173-340-600(c) and (e).

IV. ECOLOGY DETERMINATIONS

In addition to the determinations contained in the Original Order, Ecology makes the following determinations:

1. Ecology has determined that Additional Work is necessary under Section VII.6 of Agreed Order No. DE 96HS-N274. Ecology specified the basis for this determination in writing to Boeing Everett by certified letter dated April 28, 2004.

2. Based on the foregoing facts, Ecology believes the additional work to be performed as required by this Second Amendment to Order No. DE 96HS-N274 is in the public interest.

3. Based on all information known to Ecology, Ecology has determined that the additional interim actions required by this Second Amendment to Order No. DE 96HS-N274 are technically necessary to reduce a threat to human health or the environment by substantially reducing one or more pathways for exposure, to correct a problem that may become substantially worse or cost substantially more to address if remedial action is delayed, and to help provide for completion of an RI/FS or design of a cleanup action. WAC 173-340-430(1).

V.
AMENDMENT

This Second Amendment does not attempt to recite all of the provisions of the Original Order or First Amendment. Provisions of the Original Order and First Amendment not specifically addressed in this amendment remain in full force and effect.

By entering into this Second Amendment, Boeing makes no admissions of fact or law.

Agreed Order NO. DE 96HS-N274 (Original Order) is hereby amended to incorporate the following information and requirements:

1. Section IV, paragraph 4 is amended to include subsections (J) and (K) as follows:

- (J) URS, June 3, 2004, Results and Recommendations of Supplemental Remedial Investigation of Groundwater in Powder Mill Gulch, Boeing Everett Plant (Rev 3.0);
- (K) URS, October 5, 2001, Draft Remedial Investigation Report for Sediments, Surface Water, and Accumulated Solids, Boeing Commercial Airplanes – Everett Plant Volume 1 (Revision 1.0) Report.

2. Section VII, paragraph 3 (Designated Project Coordinators) is amended to incorporate a change to Boeing Everett's project coordinator and contact information and to update phone contact information for Mr. Dean Yasuda, Ecology, as follows:

The Project Coordinator for Ecology is:

Name: Mr. Dean D. Yasuda
Address: Department of Ecology - Northwest Regional Office
3190 160th Avenue S.E.
Bellevue, WA 98008-5452
Telephone: (425)-649-7264
FAX: (425)-649-7098
E-mail: dyas461@ecy.wa.gov

The Project Coordinator for The Boeing Company is:

Name: Mr. Y. Nicholas Garson
Address: Boeing Shared Services Group
Environmental Remediation
P.O. Box 3707, MC 1W-12
Seattle, WA 98124-2207
Telephone: (425)-269-7866
Email: nick.garson@boeing.com

3. Attachment 5 is amended to incorporate SWMU/AOC Nos. 180 and 181, with the addition of paragraphs 10 and 11 as follows:

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|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10. No. 180 | TCE in Groundwater within Esperance Sand Aquifer and Powder Mill Creek |
| 11. No. 181 | PCBs in joint compound on the Flightline, and within the storm water treatment system, and Powder Mill Creek and associated wetlands, sediments and surface water. |

4. Attachment 6 is amended to incorporate SWMU/AOC No. 181, with the addition of paragraph 7 as follows:

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| 7. No. 181 | PCBs in joint compound on the Flightline, and within the storm water treatment system and Powder Mill Creek and associated wetlands, sediments and surface water. |
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5. Attachment 6A is amended to incorporate the following additional requirements:

PCB Source Control Interim Actions (No. 181)

Boeing shall submit to Ecology applicable drawings, procedures or work plans for the following interim actions by the dates stated below. Upon Ecology's review and approval of such drawings or work plans, Boeing shall then perform the following interim actions in accordance with any applicable Ecology-approved drawings, procedures and work plans, including any schedules contained below and therein.

- By July 26, 2004, submit drawings, procedures, or a work plan to install and test an outlet riser within the stormwater detention basin to reduce the release of PCBs and other dangerous constituents from the detention basin to Powder Mill Creek. Performance of this interim action must be completed by August 31, 2004, unless Ecology approves an extension.
 - By July 26, 2004 submit a work plan to sample the inlets and outlets of the peat filter system, the inlets and outlets of the detention basin, and Powder Mill Creek for PCBs and other dangerous constituents to monitor the effectiveness of this outlet riser
 - By July 26, 2004, submit a work plan to sample the peat filter to characterize the lateral and vertical extent of PCBs and other dangerous constituents in the peat filters and to evaluate the effectiveness of the peat filters in removing PCBs and other dangerous constituents from the storm water.
 - By July 26, 2004, submit a work plan to continue sampling to monitor the extent and/or migration of PCBs and other dangerous constituents in surface waters of Powder Mill Creek, sediments downstream of the peat filter and the detention basin storm water discharge point, and associated wetlands.
 - By September 30, 2004, submit a work plan for the decontamination of the storm water treatment system (which includes the conveyance portion of the stormwater treatment system).
 - By July 26, 2004 submit a copy of the Standard Operating Procedures (SOPs) which minimize or eliminate washout of PCB contaminated solids during the cleanout and normal operation of the detention and sedimentation basins. The Powder Mill Gulch detention and sedimentation basins will be cleaned annually unless Ecology approves a different schedule.
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- By July 26, 2004 submit a copy of SOP(s) for the maintenance and operation of the peat filter system.


THE BOEING COMPANY, by, through and for its
BOEING COMMERCIAL AIRPLANE GROUP -
EVERETT PLANT



Kirk J. Thomson
Company Environmental Director

Date: 7/20/04

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY



Julie Sellick, Section Manager
Hazardous Waste and Toxics Reduction
Northwest Regional Office

Date: 7/26/04