

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

In the Matter of Remedial Action by:)
)
The Boeing Company)
Boeing Commercial Airplane Group-Renton Plant)
8th and Logan Avenue North)
Renton, Washington)

AGREED ORDER
No. DE 97HZ-N233

TO: The Potentially Liable Person (PLP):

The Boeing Company
c/o Mr. Gary R. Scott
Vice-President/General Manager
737/757 Programs
P.O. Box 3707, MS 74-25
Seattle, WA 98124-2207

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1 I. JURISDICTION

2 This Agreed Order ("Order") is issued pursuant to the authority of RCW 70.105D.050(1)
3 and WAC 173-303-646 (3) (a).

4 II. DEFINITIONS

5 Unless otherwise specified, the definitions set forth in Chapter 70.105D RCW and Chapter
6 173-340 WAC shall control the meanings of the terms used in this Order.

7 Additional definitions are as follows:

8 1. Additional Work means any activity or requirement not expressly covered by this
9 Order, including its incorporated attachments and Ecology approved submittals, but determined
10 by Ecology and The Boeing Company to be necessary to meet the objectives of this Order.

11 2. Agreed Order or Order means this Order issued under RCW 70.105D.050(1) and
12 WAC 173-340-530. The term includes the text of this Order, all attachments to this Order, and
13 all Ecology-approved submittals required pursuant to this Order. All attachments to this order
14 and Ecology-approved submittals are incorporated into this Order by this reference and are
15 enforceable parts of this Order as if fully set forth herein.

16 3. Area of Concern ("AOC") means any area of the Facility where a release of
17 hazardous substances (including dangerous waste and dangerous constituents) at or from the
18 Boeing Renton Plant has occurred, is occurring, is suspected to have occurred, or threatens to
19 occur.

20 4. Boeing Commercial Airplane Group - Renton Plant ("the Boeing Renton Plant")
21 means all contiguous property at 8th and Logan Avenue North, Renton, Washington, which is
22 owned, operated or under the control of The Boeing Company as of the issuance of this Agreed
23 Order, except as provided in Section VII.12 hereof regarding property transfers. The boundaries

1 of the Boeing Renton Plant as of the date of this Agreed Order are depicted on Attachment 1
2 hereto.

3 5. Cleanup Action Plan (“CAP”) means the document issued by Ecology under WAC
4 173-340-360 which selects facility specific corrective measures, cleanup standards, points of
5 compliance and other requirements for the cleanup action.

6 6. Cleanup Standards means the standards promulgated under RCW
7 70.105D.030(2)(d) and include: (1) hazardous substance concentrations “cleanup levels” that
8 protect human health and the environment; (2) the location at the Facility where those cleanup
9 levels must be attained, “points of compliance”; and (3) additional regulatory requirements that
10 apply to a cleanup because of the type of action required and/or the location of the Facility.

11 7. Corrective Action means any activity including investigations, studies,
12 characterizations and corrective measures, including actions taken pursuant to Chapter 70.105D
13 RCW and Chapter 173-340 WAC, undertaken in whole or in part to fulfill the requirements of
14 Chapter 70.105 RCW and WAC 173-303.

15 8. Corrective Measure means any measure to control, prevent, or mitigate releases
16 and/or potential releases of hazardous substances (including dangerous waste and dangerous
17 constituents) at or from the Boeing Renton Plant , which action has been reviewed and approved
18 by Ecology and set forth in a facility specific Cleanup Action Plan (“CAP”) prepared in
19 compliance with the requirements of Chapter 70.105D RCW and Chapter 173-340 WAC,
20 including WAC 173-340-360. Corrective measures may include interim actions as defined by
21 Chapter 173-340 WAC.

22 9. Dangerous Constituent means any constituent identified in WAC 173-303-9905 or
23 40 CFR Part 264 Appendix IX; any constituent which caused a waste to be listed or designated as

1 dangerous under the provisions of Chapter 173-303 WAC; or any constituent defined as a
2 hazardous substance at RCW 70.105D.020(7).

3 10. Dangerous Waste means any solid waste designated in WAC 173-303-070 through
4 173-303-100 as dangerous, extremely hazardous, or mixed waste. Dangerous wastes are
5 hazardous substances under RCW 70.105D.020(7).

6 11. Dangerous Waste Constituent means any constituent listed in WAC 173-303-9905
7 or any other constituent that has caused a waste to be a dangerous waste under Chapter 173-303
8 WAC. Dangerous waste constituents are hazardous substances under RCW 70.105D.020(7).

9 12. Day shall always mean a calendar day unless otherwise specified. In computing
10 any period of time under this Order, if the last day falls on a Saturday, Sunday, or a state or
11 federal holiday, the period shall run until the end of the next day which is not a Saturday, Sunday,
12 or a state or federal holiday. Any time period scheduled to begin on the occurrence of an act or
13 event shall begin on the day after the act or event.

14 13. Facility means the Boeing Renton Plant and all other property, regardless of
15 control, at which hazardous substances, including dangerous wastes and dangerous constituents,
16 released at or from the Boeing Renton Plant, have come to be located.

17 14. Feasibility Study ("FS") means the investigation and evaluation of potential
18 corrective measures performed in accordance with the Feasibility Study (FS) requirements of
19 WAC 173-340-350 and the Remedial Investigation and Feasibility Study (RI/FS) requirements
20 outlined in Section VI of this Order. The Ecology approved FS will be deemed to be equivalent
21 to a RCRA Corrective Measures Study, fulfilling the corrective action requirements of WAC 173-
22 303-646.

23 15. Hazardous Substance means the definition of hazardous substance at RCW
24 70.105D.020(7).

1 16. Permit or Permitting Requirement, unless otherwise specified, means the
2 requirements pursuant to Chapter 70.105 RCW and Chapter 173-303 WAC for applying for,
3 obtaining, maintaining, modifying, and terminating dangerous waste management facility permits.

4 17. RCRA Facility Assessment ("RFA") means the investigation conducted under the
5 direction of the U.S. Environmental Protection Agency - Region Ten (U.S. EPA. Region X) for
6 releases and potential releases at or from the Boeing Renton Plant . The results of the RFA are
7 described in the report entitled "*RCRA Facility Assessment, Final PR/VSJ Report, Boeing*
8 *Commercial Airplanes, Renton, Washington, Prepared by Science Applications International*
9 *Corporation*" ("RFA Report"). The RFA Report is incorporated into this Order by this reference
10 as if fully set forth herein.

11 18. Release means the definition of release at RCW 70.105D.020(19), which includes
12 any intentional or unintentional entry of any Hazardous Substance into the environment, including
13 but not limited to the abandonment or discarding of containers of Hazardous Substances.

14 19. Remedial Investigation ("RI") means a facility wide investigation and
15 characterization performed in accordance with the requirements of Chapter 173-340 WAC and
16 the remedial investigation/feasibility study ("RI/FS") WORK TO BE PERFORMED described in
17 Section VI of this Order. The Ecology approved RI will be deemed to be equivalent to a RCRA
18 facility investigation, fulfilling the corrective action requirements of WAC 173-303-646.

19 20. Solid Waste Management Unit ("SWMU") means the definition of Solid Waste
20 Management Unit at WAC 173-303-040, including any discernible location at the Boeing Renton
21 Plant, where solid wastes have been placed at any time, whether or not the location was intended
22 for the management of solid or dangerous wastes. These SWMUs include any area at the Boeing
23 Renton Plant at which solid wastes, including spills, were routinely and systematically released.

1 21. Submittal shall include any workplan, report, status report, or any other written
2 document required to be submitted to Ecology pursuant to this Order.

3 III. OBJECTIVES

4 The corrective action objectives for this facility are to protect human health and the
5 environment as follows:

6 1. Performance by The Boeing Company of a remedial investigation and feasibility
7 study (“RI/FS”) at the Facility, to be approved by Ecology and conducted in accordance with the
8 requirements of Chapter 70.105D RCW and Chapter 173-340 WAC. The purpose of the RI/FS
9 is, in part, to satisfy the corrective action requirements of WAC 173-303-646.

10 2. After completion and approval of the RI/FS, preparation by The Boeing Company
11 of a draft cleanup action plan (“CAP”) to satisfy the requirements of Chapter 173-340-400 and to
12 concurrently satisfy the corrective action requirements of WAC 173-303-646.

13 3. Finalization of a CAP after public review and comment. Negotiation of a consent
14 decree or agreed order under which The Boeing Company will design, construct, operate, and
15 monitor the selected cleanup or corrective actions. The cleanup will be designed to address
16 releases into the environment of dangerous constituents at or from the SWMUs and AOCs at the
17 Boeing Renton Plant , including any releases that migrate offsite.

18 4. Performance by The Boeing Company of interim actions which are required, and
19 reviewed and approved by Ecology in accordance with Chapter 173-340 WAC. The purpose of
20 the interim measures is to eliminate or reduce the migration of contamination in the surficial and
21 subsurface soils, sediments, surface water and/or groundwater. This Agreed Order will require
22 the continuation of on-going remedial action activities as interim actions pending Ecology
23 selection of final remedial actions, and integrate these independent remedial action activities with
24 the remedial action requirements hereunder.

1 IV. FINDINGS OF FACT

2 The Department of Ecology ("Ecology") makes the following Findings of Fact:

3 1. The Boeing Company is and has been the owner and operator of the Boeing
4 Renton Plant since at least November 18, 1980, when The Boeing Company filed its original
5 RCRA Part A permit application for the storage of dangerous wastes in a container storage area
6 and in dangerous waste tanks at the Boeing Renton Plant . Since that time, The Boeing Company
7 has submitted to the USEPA Region X and Ecology various revisions to Part A of its RCRA
8 Dangerous Waste Permit application. Ecology has approved closures for all of the interim status
9 tanks at the Boeing Renton Plant. Currently, the Boeing Renton Plant's container storage area at
10 Building 4-78 is subject to RCRA interim status requirements pursuant to Section 3005 of RCRA
11 and implementing regulations including the authorized Washington State Dangerous Waste
12 Regulations promulgated in Chapter 173-303 WAC.

13 2. On August 8, 1980, The Boeing Company notified the USEPA Region-X of its
14 dangerous waste management activities at the Boeing Renton Plant , and was assigned
15 WAD009262171 in response to the notification. Since that time, the Boeing Company has
16 submitted various revised notification forms. In the notifications, The Boeing Company has
17 identified itself as managing the following dangerous wastes at the Boeing Renton Plant:
18 halogenated solvents including methylene chloride, trichloroethylene, tetrachloroethylene, carbon
19 tetrachloride, 1,1,1-trichloroethane, chlorobenzene; non-halogenated solvents including methyl
20 ethyl ketone, acetone, benzene, xylenes, toluene, ethyl benzene, phenol; flammable paint shop
21 waste; heavy metals including lead, arsenic, chromium, cadmium, mercury; paint booth sludge;
22 paint stripper; poisonous liquids; flammable resins; asbestos; cyanide solution; PCBs; organic
23 peroxide; paints; adhesives; sealants; thinners; heat treat salts; oxidizer liquid; chromium
24 contaminated primer kits and containers; cans with residual paint containing TC metals; gasoline;

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1 oil/solvent ignitable mixture; jet fuel; rust/corrosion inhibitor compound; waste acids; caustic
2 waste; cadmium cyanide plating solution; copper cyanide plating solution; heavy metal plating
3 bath water; lead acid batteries; alkaline batteries containing mercury; Turco 5351 cleaner; epoxy
4 resins; hardener; nickel plating solution; dirt containing heavy metals; photochemicals (developer,
5 fixer, toner); freon; rags contaminated with various solvents; metal shavings with water based
6 coolants; absorbent and debris contaminated with solvents, oils and metal shavings; waste alodine
7 solution; mixed acid process solution; deoxidizing solution; sodium hydroxide cleaning solution;
8 filters contaminated with alkaline cleaner; used respirator cartridges with solvents; solids and
9 rinsate from waste water treatment plant stripping tower cleaning; used antifreeze for heating and
10 refrigeration equipment; debris and concrete slurry; used spray gun cleaner; sandblast grit
11 contaminated with paint; debris, soil and water contaminated with PCBs; transformer oil
12 contaminated with PCBs; spent alkaline cleaner solutions; and paint hangar wash water.

13 3. The primary activity at the Boeing Renton Plant is the manufacture of the 737 and
14 757 models of commercial airplanes. The major operations at the Boeing Renton Plant are
15 preparation of parts, mechanical assembly, coating operations, testing, and support operations
16 associated with the final assembly of jet airplanes.

17 4. The Boeing Renton Plant is located on property that was selected by the U.S.
18 government for construction of a seaplane facility in 1941. Construction was initiated in that year
19 on a 95 acre portion of the property that was originally a swampy marsh. In 1945, a 5,000 foot
20 runway was constructed west of the original 95 acres on land reclaimed from Lake Washington
21 which became the City of Renton Municipal Airport. Boeing currently leases portions of the
22 Airport property and operates these areas as part of the Boeing Renton Plant. In 1962, Boeing
23 purchased the original 95 acres from the Air Force. Currently, the property consists of

1 approximately 325 acres, of which 280 acres are owned by The Boeing Company. The remaining
2 property is leased from the City of Renton.

3 5. The Boeing Renton Plant is bordered by Lake Washington to the north and is
4 crossed by the Cedar River in the western portion of the Plant. The lower section of the Cedar
5 River and Lake Washington provide primary migration pathways for large populations of
6 anadromous salmonids, and are heavily used for recreation activities. The Cedar River is used as
7 a municipal water supply by the City of Seattle over 20 miles upstream from the Renton plant.

8 6. Upgradient groundwater is used as a drinking water supply by the City of Renton.
9 Groundwater contamination at the Boeing Renton Plant may result in impacts on water quality in
10 adjacent waters outside of areas presently used as drinking water. The Boeing Renton Plant does
11 not lie within any of the Aquifer Protection Areas designated under Ordinance No. 4367, dated
12 September 17, 1992, City of Renton, Washington, as amended.

13 7. State regulations [WAC 173-303-400(3)(a)(i) and WAC 173-303-646] require
14 that all dangerous waste treatment, storage and disposal ("TSD") facilities operating under
15 interim status must conduct corrective action, as necessary to protect human health and the
16 environment, for all releases of dangerous wastes and dangerous constituents at or from the TSD
17 facility. Since the Boeing Renton Plant has been operating a TSD facility under interim status, it
18 is subject to corrective action requirements under WAC 173-303-646.

19 8. On May 9 and 11, 1990, Science Applications International Corporation (SAIC)
20 conducted visual site inspection (VSI) as part of RCRA Facility Assessment (RFA) at the Boeing
21 Renton Plant. The purpose of the RFA is to identify the areas at the Boeing Renton Plant where
22 releases of dangerous constituents may have occurred or may be occurring. Pursuant to the RFA
23 report and other information, Ecology has identified the Solid Waste Management Units
24 (SWMUs) and Areas of Concern (AOCs) at the Boeing Renton Plant listed in Attachments 2

1 through 4. Ecology has determined that no further corrective action is required for SWMUs and
2 AOCs listed in Attachment 4.

3 9. Dangerous constituents which have been released or have the potential to be
4 released to soils, groundwater, surface water and/or sediments include, but not limited to,
5 benzene, toluene, xylenes, ethyl benzene, methyl ethyl ketone, methylene chloride, 1,1-
6 dichloroethane, trichloroethylene, tetrachloroethylene, carbon sulfide, chloroform, acetone,
7 naphthalene, 2-methyl naphthalene, bis(2-ethylhexyl) phthalate, tributyl phosphate,
8 benzo(b)fluoranthene, arsenic, zinc, mercury, cadmium, chromium, lead, copper, nickel, antimony,
9 beryllium, thallium, TPHs, PCBs, and cyanides. Releases from SWMUs and AOCs are
10 documented in the reports in Attachment 8.

11 V. ECOLOGY DETERMINATIONS

12 1. The Boeing Company is a person within the meaning of RCW 70.105D.020(11).

13 2. The Boeing Company is the owner and operator of a dangerous waste
14 management facility that has operated under interim status and continues to be subject to Section
15 3005(e) of RCRA and regulations promulgated thereunder, including authorized state regulations
16 in Chapter 173-303 WAC.

17 3. Certain waste and constituents found at the Facility are dangerous wastes and/or
18 dangerous constituents as defined by Chapter 173-303 WAC, and shown in Section II of this
19 Order.

20 4. Dangerous wastes and dangerous constituents are considered hazardous
21 substances within the meaning of RCW 70.105D.020.

22 5. Based on the Findings of Fact and the administrative record, Ecology has
23 determined that releases and potential releases of hazardous substances at and/or from the Boeing
24 Renton Plant may present a threat to human health and the environment. Ecology has further

1 determined that this Agreed Order should be issued in order to achieve the objectives stated in
2 Section III hereof.

3 6. By letter dated August 30, 1996, Ecology notified The Boeing Company of its
4 status as a "potentially liable person" under RCW 70.105D.040.

5 7. Pursuant to RCW 70.105D.030(1), Ecology may require potentially liable persons
6 to investigate or conduct other remedial actions with respect to the release or threatened release
7 of hazardous substances, whenever Ecology believes such action to be in the public interest.

8 8. Ecology has determined that the actions, including investigations, required by this
9 Order are in the public interest.

10 9. By entering into this Order, The Boeing Company makes no admissions of fact or
11 liability. However, The Boeing Company agrees not to contest the above facts or its status as a
12 PLP in any proceeding or administrative action brought by Ecology to enforce this Order.

13 VI. WORK TO BE PERFORMED

14 Based on the foregoing Facts and Determinations, it is hereby ordered that The Boeing
15 Company take the following remedial actions and that these actions be conducted in accordance
16 with Chapter 173-340 WAC and Chapter 173-303 WAC, unless otherwise specifically provided
17 for herein.

18 1. Within 90 calendar days of the effective date of this order, The Boeing Company
19 shall provide the Washington State Department of Ecology - Northwest Regional Office
20 ("Ecology -NWRO") a draft remedial investigation ("RI") workplan which discusses procedures
21 for investigating the subsurface soil and hydrogeological regime at the Facility, and for
22 characterizing the concentration, chemical nature, extent (horizontal and vertical), and the
23 direction and rate of migration of dangerous constituents released into the environment at or from
24 each of the SWMUs and AOCs identified in Attachment 2: SWMUs and AOCs Where Action is

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1 Needed at the Boeing Renton Plant. The draft RI workplan shall follow the requirements
2 specified in WAC 173-340-350. Information gathered in the RI shall be of adequate technical
3 quality and detail to support the recommendations of a Feasibility Study ("FS"). For the
4 portion(s) of the facility containing SWMUs and AOCs identified in Attachment 2, the RI
5 workplan shall describe procedures for evaluating:

6 (A) the vertical and horizontal hydraulic conductivity of the soil in the unsaturated and
7 saturated zones to appropriate depths based on existing information on subsurface
8 conditions, data gathered during the RI activities, and characteristics of each SWMU and
9 AOC;

10 (B) the seasonal groundwater direction and gradient of all potentially impacted
11 groundwater units;

12 (C) a qualitative description of potential human and environmental receptors and
13 potential pathways to each receptor from each SWMU and AOC or group of SWMUs and
14 AOCs, as appropriate. Based on this information, Ecology may, at a later time, request
15 further quantitative evaluation of the migration of contaminants to potential receptors;

16 (D) the lithologic description of stratigraphic units beneath the SWMUs. All soil
17 borings logged shall be classified using the Unified Soil Classification (USC) system. Soil
18 measurements shall include as appropriate: bulk density, porosity, total organic matter
19 content, particle size distribution, and moisture content;

20 (E) the lateral continuity of all stratigraphic units encountered in the areas investigated;

21 (F) the potential hydraulic connection between hydrogeologic units with surface water
22 bodies and human or environmental receptors;

1 (G) the estimated rate and direction of future migration in the subsurface soils,
2 groundwater, surface water, and sediments of dangerous constituents released at or from
3 SWMUs and AOCs;

4 (H) the chemical and physical properties of the soil, sediment, groundwater, surface
5 water and released dangerous constituents which may assist in determining mobility and
6 degradation of the dangerous constituents;

7 Additionally, the RI workplan shall describe procedures to evaluate:

8 (I) past discharges from the following stormwater outfalls: 003, 004, 010, 011, 012,
9 013, 014, 015, and 016 (depicted on Attachment 1).

10 (J) material deposited in the pipes or the nearest catch-basins, located inside the
11 boundary of the Boeing Renton Plant, upstream of the following outfalls: 001, 002 and
12 005.

13 Additionally, for the portion(s) of the facility containing the SWMUs and AOCs identified in
14 Attachment 2, the RI workplan shall describe procedures for approval by Ecology addressing the
15 following:

16 (K) hydrogeologic cross sections;

17 (L) seasonal water level contour maps obtained from groundwater wells, where the
18 location, number, and construction of groundwater monitoring wells shall be sufficient to
19 characterize the extent and nature of any groundwater contamination.

20 (M) the documentation of well construction materials, design, installation, and
21 development methods. Groundwater monitoring wells shall be designed, sampled,
22 constructed, maintained, and abandoned in accordance with Chapter 173-160 WAC and
23 consistent with the *Technical Enforcement Guidance Document* (U.S. E.P.A. OSWER
24 9950.1 September 1992);

1 (N) a list and map of the location, including water extraction rates, of all active and
2 inactive local water withdrawing wells within a 1.0 mile radius of the Boeing Renton Plant
3 and their potential effect on hydraulic gradients;

4 (O) data from the chemical analysis of potentially impacted media (e.g., soil,
5 groundwater, sediment, and surface water) samples for dangerous constituents and their
6 major breakdown products likely to be present based on The Boeing Company's
7 knowledge of past and present chemical usage associated with a SWMU and AOC or
8 group of SWMUs and AOCs. Groundwater samples for chemical analysis shall be
9 collected on at least a quarterly basis, unless otherwise approved by Ecology. Soil
10 samples for chemical analysis will be obtained at appropriate intervals as designated in the
11 Workplan, utilizing criteria specified in the Workplan and approved by Ecology;

12 (P) a time schedule for the completion of RI milestones;

13 (Q) a list of analytical methods, detection limits, practical quantitation limits, and
14 chemical parameters to be analyzed. Prepare quality assurance/quality control procedures
15 (QA/QC) and submit them to Ecology-NWRO for review and approval. Prepare the QA
16 Project Plan consistent with *Guidelines and Specifications for Preparing Quality*
17 *Assurance Project Plans*, May 1991, Department of Ecology Publication No. 91-16
18 (Attachment 6); and

19 (R) a sampling and analysis plan in accordance with WAC 173-340-820 and 830 and
20 consistent with *Guidance on Sampling and Data Analysis Methods*, January 1995,
21 Department of Ecology Publication No. 94-49 (Attachment 7).

22 In preparing the RI Workplan and RI Report, and conducting the RI, The Boeing Company may
23 utilize information or data gathered during previous independent investigations, and may group
24 SWMUs and AOCs for purposes of effective discussion and analysis. The Boeing Company may

1 use a phased approach to RI investigations per criteria approved by Ecology in the RI Workplan.
2 The RI Report shall also contain recommendations, for approval by Ecology, identifying those
3 releases of dangerous constituents from the SWMUs and AOCs listed in Attachments 2 and 3
4 which should be addressed in the FS Workplan.

5 2. Within 60 calendar days of the effective date of this Agreed Order, The Boeing
6 Company shall submit to Ecology-NWRO, an interim action workplan for SWMUs and AOCs
7 listed in Attachment 3: SWMUs and AOCs Where Action is On-Going at the Boeing Renton
8 Plant. The interim action workplan is intended to address SWMUs and AOCs at which corrective
9 action is ongoing, and shall discuss information generated, activities undertaken, and interim
10 actions underway (e.g., ongoing operation and monitoring).

11 (A) Interim action described in the workplan shall include, but not be limited to:

- 12 (i) the description of each of the interim actions at the SWMUs and AOCs
13 listed in Attachment 3, and how each will meet the criteria identified in WAC 173-
14 340-430(1) and (2) as appropriate;
- 15 (ii) a description of the information and data generated and plans utilized in
16 conducting the interim actions, consistent with appropriate provisions contained in
17 WAC 173-340-430(6);
- 18 (iii) a QA Project Plan written consistent with *Guidelines and Specification for*
19 *Preparing Quality Assurance Project Plans, May 1991, Department of Ecology*
20 *Publication No. 91-16*;
- 21 (iv) time schedule of the activities; and
- 22 (v) description of the anticipated effectiveness of the interim actions when
23 completed, and conditions for terminating interim actions.

1 (B) Installation, design, and maintenance of groundwater wells shall be in compliance
2 with WAC 173-160 Minimum Standards for Construction and Maintenance of Wells and
3 consistent with the technical Enforcement Guidance Document (U.S.E.P.A. OSWER
4 9950.1 September 1986).

5 (C) Conditions for temporary or permanent termination of interim actions shall be one
6 of the following:

7 (i) The expected results are achieved and confirmed by Ecology;

8 (ii) Ecology determines that conditions no longer warrant interim actions; or

9 (iii) Ecology or The Boeing Company determines that health and safety of the
10 site workers or individuals in the impacted area are potentially at risk.

11 3. Upon completion of the remedial investigation work described in the final
12 Ecology-approved RI workplan, The Boeing Company shall submit to Ecology-NWRO a draft RI
13 report as provided in the approved RI Workplan schedule.

14 4. Within 60 calendar days after receiving written Ecology approval of the final RI
15 report, The Boeing Company shall submit to Ecology-NWRO a draft FS workplan. The draft FS
16 workplan shall be written in accordance with WAC 173-340-350, and contain at a minimum
17 methods for evaluating the technical, environmental and human health, and financial costs
18 associated with each remedial option. The FS Workplan will contain a time schedule for
19 completing the FS activities and, at a minimum, the methods for evaluating the following:

20 (A) Current Conditions: The Boeing Company shall update Ecology on the current
21 nature and extent of dangerous constituents released at or from the SWMUs and AOCs
22 addressed in the RI, if different from the results of the RI report.

23 (B) Technical: The Boeing Company shall develop a set of remedial options to
24 address those SWMUs and AOCs to be evaluated in the FS. The initial set of remedial

1 options shall include options utilizing preferred cleanup technologies described in WAC
2 173-340-360(4)(a). The FS workplan may incorporate prescreening of remedial
3 alternatives in order to streamline the FS process, and may propose a focused analysis to
4 support the use of presumptive remedies recognized in U.S. Environmental Protection
5 Agency cleanup guidelines. The Boeing Company shall, at a minimum, evaluate the
6 following for each pre-screened remedial option:

7 (i) the permanence and practicability of the option, based upon factors of
8 overall protectiveness of human health and the environment, long-term
9 effectiveness, short-term effectiveness, permanent reduction of toxicity, mobility
10 and volume of dangerous constituents, implementability, cost, and community
11 concerns as specified in WAC 173-340-360(5)(d);

12 (ii) chemical and physical characteristics of remediation wastes generated;

13 (iii) compliance with all Federal and State applicable, relevant, and appropriate
14 regulations ("ARARs"), including but not limited to standards in RCRA, Clean
15 Water Act, Clean Air Act, Model Toxics Control Act ("MTCA"), Toxic
16 Substances Control Act ("TSCA"), and Safe Drinking Water Act ("SDWA");

17 (iv) limitations of site use as a result of implementing each remedial option,
18 including but not limited to deed restrictions, access control mechanisms to
19 prevent unauthorized entry, surface covers, and prohibition on use of groundwater
20 for drinking, agricultural, or industrial purposes;

21 (v) if required by Ecology, examples of facilities using the same remedial
22 options for similar dangerous constituents, and a discussion of the results achieved;
23 and

1 (vi) discussion of laboratory or bench-scale tests necessary to evaluate the
2 effectiveness of any remedial option.

3 (C) Environmental: Evaluate the future long and short term adverse effects and
4 response to the environment of each remedial option, and measures necessary to mitigate
5 any adverse effects. Evaluate both the positive and negative environmental consequences
6 of implementing each remedial option.

7 (D) Human Health and the Environment: Evaluate the future long and short term
8 potential exposure to human and environmental receptors of residual contamination during
9 and after remedy implementation, based on potential exposure routes and toxicity of
10 dangerous constituents.

11 (E) Cost Estimate: Evaluate the capital costs (mobilization, design, construction,
12 permits, licenses, and taxes) for each remedial option. Include, at a minimum, quantities,
13 unit costs, and total costs, annual operating costs (labor, expendable goods, utilities, and
14 laboratory analysis), and present worth analysis of each remedial option.

15 (F) Restoration Timeframe: Submit an estimate of the time required to meet the
16 remediation goals for each remedial option in the draft FS workplan.

17 (G) Recommendation: Provide a recommendation for one or more remedial options
18 based on the factors described above.

19 5. Upon completion of the feasibility study work described in the final Ecology-
20 approved FS workplan, The Boeing Company shall submit to Ecology-NWRO a draft FS report
21 as provided in the approved FS workplan schedule.

22 6. After Ecology concurrence and approval of the final FS report, and if required by
23 Ecology, The Boeing Company shall submit a draft cleanup action plan ("DCAP") to Ecology-
24 NWRO within 45 calendar days of receipt of formal notification of such requirement by letter.

1 The notification shall identify the required scope of the DCAP. The DCAP shall meet the
2 requirements of WAC 173-340-360, -400(1) through (7), -410 as well as WAC 173-303-646.

3 7. The scope of any DCAP required by Ecology shall be subject to the Additional
4 Work provisions in Section VII. 6.

5 8. After the parties agree upon the terms of a DCAP, The Boeing Company shall
6 enter into negotiations with Ecology regarding a consent decree or agreed order to design,
7 construct, operate, and monitor the chosen remedial option(s) described in the DCAP. After
8 public review and comment on the DCAP document and agreed order or consent decree, Ecology
9 will modify and approve the final cleanup action plan ("CAP").

10 9. Notwithstanding the foregoing, if the Remedial Investigation identifies releases of
11 dangerous constituents at the Facility from both Boeing and non-Boeing third party sources
12 which, due to source(s), nature and/or location, render it impracticable for Boeing to remediate
13 the release from Boeing sources without involving third parties (the "Commingled Releases"),
14 Ecology may allow Boeing to conduct additional Remedial Investigation and/or a Feasibility
15 Study, and prepare a Cleanup Action Plan addressing Commingled Releases pursuant to a
16 separate agreed order or consent decree, as appropriate. In such event, Boeing and Ecology may
17 proceed as follows under this Agreed Order:

18 a. Prepare a DCAP and issue an Interim CAP under this Agreed Order addressing
19 non-Commingled Releases and, as appropriate, any sources of Commingled Releases at
20 the Boeing Renton Plant, pending issuance of a CAP addressing Commingled Releases
21 under separate order or decree;

22 b. Proceed with negotiation of a consent decree or agreed order to implement the
23 Interim CAP; and

1 c. Issue a final CAP under this Agreed Order incorporating the CAP for the
2 Commingled Releases once it is finalized under separate order or decree.

3 In lieu of or in addition to the foregoing, Boeing and Ecology may agree to take such
4 other actions as may be appropriate to provide for remediation of non-Commingled
5 Releases and Commingled Releases under separate orders or decrees.

6 10. The Boeing Company shall follow the reporting guidelines in WAC 173-340-840
7 for all parts of this order unless otherwise agreed to by both Ecology and The Boeing Company.
8 All data generated pursuant to this order shall be submitted to Ecology-NWRO, including all
9 outlier and duplicate data. In addition, all groundwater, sediment, surface water, and soil data
10 generated shall be submitted to Ecology-NWRO in electronic ACCESS format for the
11 constituent concentrations detected above method detection limits in the above referenced
12 environmental media. Laboratory detection limits and practical quantitation limits shall be
13 reported for each chemical constituent detected.

14 11. The Boeing Company shall submit status reports to Ecology-NWRO every two
15 months, starting from the effective date of this Agreed Order until all of the requirements of this
16 Agreed Order are completed to Ecology's satisfaction. The submittal shall be due on the 15th day
17 of the month following the two-month activity period. The Boeing Company shall include the
18 following in each status report:

19 (A) all work conducted pursuant to this Agreed Order during the last two month
20 period;

21 (B) occurrence of any problems, how problems were rectified, deviations from the
22 workplans and an explanation for all deviations;

23 (C) projected work to occur in the upcoming 2 months;

1 (D) summaries of significant findings, changes in personnel, summaries of contacts
2 with all federal, state, local community, and public interest groups; and

3 (E) all laboratory analyses in tabulated data format for which quality assurance
4 procedures were completed during the two month period.

5 If both Ecology and The Boeing Company agree that such a change is necessary, the frequency
6 of progress report submittals shall be revised. This would be an example of a minor modification
7 that may be agreed to by Ecology and The Boeing Company without public comment.

8 12. The Boeing Company shall notify Ecology's Project Coordinator in writing of any
9 newly-identified SWMU(s) managing dangerous waste at the Boeing Renton Plant, newly-
10 discovered releases from known SWMU(s), and newly-discovered significant releases of
11 dangerous waste or dangerous constituents, as defined in WAC 173-303-806(4)(a)(xxiv)(A), at
12 or from the Boeing Renton Plant no later than 15 calendar days after discovery. The Boeing
13 Company is not required to notify Ecology of a newly identified satellite accumulation area or 90-
14 day accumulation area unless the condition indicates a potential for a release of dangerous
15 constituents. Additional activities to address new discoveries are subject to the Additional Work
16 provisions of Section VII.6.

17 13. If Ecology identifies an immediate threat to human health and environment,
18 Ecology will notify The Boeing Company in writing. Within 15 calendar days (or such longer
19 period as may be approved by Ecology, given the complexity and scope of the tasks to be
20 performed), after receiving Ecology's written notification, The Boeing Company shall submit to
21 Ecology for approval a description of measures to be taken and a schedule for conducting the
22 work (including preparation and submittal of any Workplans). If Ecology determines that
23 immediate action is required, Ecology may authorize The Boeing Company to act prior to
24 Ecology receipt of The Boeing Company's description of proposed measures.

1 14. Subsurface closure activities for the Building 4-78 Dangerous Waste Container
2 Storage Area will be conducted as part of the facility-wide corrective action process. After the
3 facility-wide corrective action is completed, the final closure for the Building 4-78 container
4 storage unit will be approved and the interim status for the facility will be terminated.

5 15. Except as specifically required herein, the provisions of Section VI, including
6 notice requirements under Section VI.12 regarding new releases, shall not apply to releases or
7 discharges to the environment authorized by a federal, state or local agency with jurisdiction to
8 issue such permits.

9 VII. TERMS AND CONDITIONS OF ORDER

10 1. Public Notices: WAC 173-340-600(10)(c) requires a 30 day public comment
11 period before this Agreed Order becomes effective. Ecology shall be responsible for providing
12 such public notice. Ecology intends to issue a SEPA determination of non-significance for the
13 remedial investigation, feasibility study, interim actions and additional work, if any, described in
14 this Agreed Order.

15 2. Remedial and Investigative Costs: The Boeing Company agrees to pay costs
16 incurred by Ecology pursuant to this Order. These costs shall include work performed by
17 Ecology engineers, hydrogeologists, toxicologists, or technical specialists, or Ecology's
18 contractors for investigations and remedial actions, as well as Ecology's negotiation, oversight,
19 Order preparation, and administration costs. Ecology will provide written notice to The Boeing
20 Company prior to the use of outside engineers, hydrogeologists, toxicologists, or technical
21 specialists. Ecology costs shall include costs of direct activities and support costs of direct
22 activities as defined in WAC 173-340-550(2). The Boeing Company agrees to pay the required
23 amount within forty-five (45) days of receiving from Ecology an itemized statement of costs that
24 includes a summary of costs incurred, an identification of involved staff, and the amount of time

1 spent by involved staff members on the project. Ecology will provide a general description of
2 work performed along with, or concurrent with, submittal of itemized statements. Itemized
3 statements will be prepared quarterly. Interest charges will result if Ecology's costs are not paid
4 within forty-five (45) days of receipt of the itemized statement of costs. Cost incurred after
5 August 1, 1995, but before the effective date of this Order will be included in the first quarterly
6 invoice with current charges.

7 3. Designated Project Coordinators:

8 The Project Coordinator for Ecology is:

9 Name: Mr. Byung K. Maeng

10 Address: Department of Ecology - Northwest Regional Office

11 3190 160th Avenue S.E.
12 Bellevue, WA 98008-5452
13

14 Telephone: (425) 649-7253

15 FAX: (425) 649-7098

16 E-mail: bmae461@ecy.wa.gov

17 The Project Coordinator for the Boeing Renton Plant is:

18 Name: Mr. Raymond T. Power

19 Address: Boeing Commercial Airplane Group

20 P.O. Box 3707, MS 63-41
21 Seattle, WA 98124-2207
22

23 Telephone: (425) 234-7744

24 FAX: (425) 237-4464

25 E-mail: raymond.t.power@boeing.com

26 The Project Coordinator(s) shall be responsible for overseeing the implementation of this
27 Order. To the maximum extent possible, communications between Ecology and The Boeing

Date: 9/25/97

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1 Company, and all documents, including reports, approvals, and other correspondence concerning
2 the activities performed pursuant to the terms and conditions of this Order, shall be directed
3 through the Project Coordinator(s). Should Ecology or The Boeing Company change Project
4 Coordinator(s), written notification shall be provided to Ecology or The Boeing Company at least
5 ten (10) calendar days prior to the change, if possible.

6 4. Ecology Approvals: The Boeing Company shall submit draft Submittals pursuant
7 to the schedules required by this Agreed Order or as otherwise approved hereunder. With the
8 exception of periodic status reports, Ecology will review all Submittals required by this Order,
9 and will provide written approval, or disapproval with comments and/or modifications to be made
10 by The Boeing Company. A Submittal shall become final when it is approved by Ecology in
11 writing. Once approved in writing by Ecology, all submittals to Ecology are incorporated by
12 reference and become enforceable parts of this Agreed Order, as if fully set forth herein.
13 Following approval of any Submittal, The Boeing Company shall commence all Work required
14 thereby within fifteen (15) days after receipt of Ecology approval, unless a longer time is specified
15 by Ecology.

16 During the performance of work under an approved submittal, field modifications to the
17 submittal may be agreed to verbally by the Project Coordinators. In such case, The Boeing
18 Company shall submit a description of the modification to Ecology's Project Coordinator in
19 writing within seven (7) days of the verbal agreement, and Ecology's Project Coordinator shall
20 provide written confirmation of the agreed modification.

21 When Ecology provides comments or proposed modifications to The Boeing Company on
22 any Submittal, and if The Boeing Company agrees with Ecology's comments and/or proposed
23 modifications, The Boeing Company shall submit a revised Submittal incorporating all of
24 Ecology's comments and/or proposed modifications within thirty (30) days of The Boeing

1 Company's receipt of Ecology's comments and/or proposed modifications, unless a longer time is
2 specified by Ecology. If, following submission of a draft Submittal, The Boeing Company
3 disagrees or has questions concerning Ecology's comments and/or required modifications, The
4 Boeing Company, within seven (7) days after receipt of Ecology's comments or required
5 modifications, may request a meeting or telephone conference, with the Ecology Project
6 Coordinator to resolve the matter. Such request shall be in writing, and will establish a twenty
7 (20) day informal resolution period beginning with the date of the written request. The written
8 request shall include a statement of the issues The Boeing Company wishes to address.

9 The informal resolution period shall extend the due date for resubmittal. If agreement is
10 reached within the informal resolution period, The Boeing Company shall incorporate into a
11 revised Submittal the agreed-upon comments and/or modifications within thirty (30) days after
12 reaching agreement, unless a longer time is specified by Ecology. If agreement is not reached
13 within the informal resolution period, Ecology shall send a written letter of disapproval to The
14 Boeing Company. The Boeing Company shall then either submit a revised, final draft Submittal
15 which incorporates all Ecology comments or required modifications within thirty (30) days of
16 receipt of the written disapproval letter unless a longer time is approved by Ecology, or The
17 Boeing Company may invoke the dispute resolution procedures in Section VII. 10 (B) of this
18 Agreed Order for all comments or required modifications The Boeing Company wishes to
19 challenge.

20 5. Performance: The Boeing Company shall notify Ecology as to the company(s) or
21 firm name(s) of any consulting engineer(s), geologist(s), hydrogeologist(s), or similar expert(s),
22 and of any contractors and/or subcontractors to be used in carrying out the terms of this Order,
23 at least 7 calendar days in advance of their involvement at the facility, if possible. The Boeing
24 Company shall provide a copy of this Order to all consultants and contractors retained to perform

1 work required by this Order, and shall ensure that all work undertaken by such consultants,
2 contractors and subcontractors will be in compliance with this Order. Upon request, The Boeing
3 Company shall provide the names of such engineers, hydrogeologists, toxicologists, or similar
4 experts of any contractors or subcontractors used in carrying out the terms of this Order.

5 WAC 173-340-400(7)(b)(i) requires that "construction" performed on the facility must be
6 under the supervision of a professional engineer registered in Washington. In addition, all work
7 performed by The Boeing Company pursuant to this Order shall be under the direction and
8 supervision, as necessary, of a professional engineer or hydrogeologist, or similar expert, with
9 appropriate training, experience and expertise in hazardous waste facility investigation and
10 cleanup.

11 Unless manufacturing schedule needs interfere, The Boeing Company shall provide 7
12 working days notice to Ecology's Project Coordinator prior to commencing any major work
13 activities pursuant to this Agreed Order. Major work activities which require a seven (7) day
14 notice will be described in the Ecology approved RI/FS and interim action workplans. Ecology
15 agrees that a schedule in an Ecology-approved workplan constitutes adequate notice.

16 Except as allowed by WAC 173-340-510(5) or where necessary to abate an emergency
17 situation, The Boeing Company shall not perform any corrective measures to control, prevent, or
18 mitigate releases of hazardous substances at or from the Boeing Renton Plant , other than those
19 required by this Order unless Ecology concurs, in writing, with such additional measures.

20 6. Additional Work: Ecology may determine or The Boeing Company may propose
21 that Additional Work is or may be necessary to implement this Agreed Order. If the Additional
22 Work is proposed by Boeing, Ecology will respond to the proposal in writing within thirty (30)
23 days after its receipt. If the Additional Work is required by Ecology, then Ecology will specify in
24 writing the basis for its determination that the Additional Work is necessary.

1 Within fifteen (15) days after the receipt of such written determination, The Boeing
2 Company shall notify Ecology-NWRO of its willingness to perform the Additional Work or may
3 request a meeting with the Ecology Project Coordinator to discuss the Additional Work as
4 specified in the informal dispute resolution procedures set forth in Section VII.10(A). If, after
5 such meeting, The Boeing Company disagrees with Ecology's request for Additional Work, The
6 Boeing Company may invoke dispute resolution procedures set forth in Section VII.10(B) below.
7 If dispute resolution is not invoked on Ecology's written request for Additional Work, The Boeing
8 Company shall submit a Workplan for Ecology review incorporating the Additional Work within
9 30 days (or more, if approved by Ecology) after either submitting notice of its willingness to
10 perform or the date of the meeting with Ecology, as applicable. Ecology's review and approval of
11 such Workplan shall be subject to the procedures set forth in Section VII.4. Upon written
12 approval of the Workplan, The Boeing Company shall implement the Workplan in accordance
13 with the schedule contained therein.

14 7. Access: Except as provided below regarding safety and security precautions,
15 Ecology or any Ecology authorized representative shall have the authority to enter and freely
16 move about the Boeing Renton Plant at all reasonable times for the purposes of, among other
17 things, inspecting records, operation logs, and contracts related to the work being performed
18 pursuant to this Order; reviewing the progress in carrying out the terms of this Order; conducting
19 such tests or collecting samples as Ecology or the Project Coordinator may deem necessary; using
20 a camera, sound recording, or other documentary type equipment to record work done pursuant
21 to this Order; and verifying the data submitted to Ecology by The Boeing Company. By signing
22 this Agreed Order, The Boeing Company agrees that this Order constitutes reasonable notice of
23 access, and agrees to allow access to the Boeing Renton Plant by Ecology and all Ecology agents
24 at all reasonable times for purposes of overseeing work performed under this Order. Ecology

1 shall allow split or replicate samples to be taken by The Boeing Company during an inspection
2 unless doing so compromises the integrity of Ecology's sampling. The Boeing Company shall
3 allow split or replicate samples to be taken by Ecology and shall provide seven (7) days notice
4 before any sampling activity. Ecology agrees that a schedule in an Ecology-approved workplan
5 constitutes adequate notice.

6 If photographs are to be taken in a U.S. Department of Defense ("DOD") area that
7 contains items important to national security, then The Boeing Company shall provide a
8 competent photographer to take photographs under the instruction of Ecology staff on site
9 subject to limitations required for protection of DOD secrets, including any required DOD
10 security clearance. All such photographs will be developed and previewed by The Boeing
11 Company to enable The Boeing Company to assure compliance with security requirements for
12 protection of DOD secrets. The Boeing Company shall provide two copies to Ecology-NWRO of
13 all photographs taken within 7 days, excepting any photographs for which additional precautions
14 must be followed to protect DOD secrets. The Boeing Company shall provide Ecology with a log
15 of the photographs taken, and shall identify photographs withheld for protection of DOD secrets.

16 The Boeing Company's Project Coordinator or other representative may accompany
17 Ecology's representative(s) at all times for purposes of plant security, and compliance with plant
18 and work area health and safety precautions. If Ecology or its representatives seek to perform
19 their duties at the Facility in a manner which is not in compliance with any written plant or work
20 area facility health and safety requirement or rule, or any applicable federal or state law or
21 promulgated regulation, The Boeing Company's Project Coordinator or other representative may
22 verbally notify such Ecology representative(s) of the non-compliance. Ecology shall ensure that
23 its employees, contractors, and other representatives comply with all applicable health and safety

1 laws, and with all plant and work area health and safety plans of which Ecology or its
2 representatives have notice.

3 If Ecology desires to obtain access to any manufacturing or process areas at which The
4 Boeing Company conducts activities utilizing information which is proprietary, The Boeing
5 Company may request in writing, pursuant to RCW 43.21B, that documentation of such areas be
6 designated as confidential business information to protect against Ecology disclosure of
7 information collected. If Ecology desires to obtain access to any manufacturing or process areas
8 at which The Boeing Company conducts activities utilizing secrets associated with DOD projects,
9 The Boeing Company may request a reasonable delay to providing such access so that The
10 Boeing Company's and Ecology's representatives may further confer regarding the purpose of the
11 inspection in the area and appropriate precautions for protecting DOD secrets. Ecology shall be
12 responsible for obtaining any DOD required security clearance prior to entering secured areas.

13 If access to areas not under the control of The Boeing Company is necessary for
14 performance of work under this Order, The Boeing Company shall use reasonable best efforts to
15 obtain such access and shall include Ecology representatives among those persons authorized to
16 enter and inspect property under any access agreements obtained for performance of work under
17 the Order. The Boeing Company shall promptly notify Ecology in writing if it is unable to obtain
18 necessary access agreement(s) from owners of such properties and shall provide a written
19 description of how The Boeing Company has used its reasonable best efforts to obtain access.

20 8. Public Participation: The Boeing Company shall update the Public Participation
21 Plan for the facility as needed. Ecology will review and approve updates to the plan and will
22 maintain the responsibility for public participation at the facility. The Boeing Company shall help
23 coordinate and implement public participation for the facility as specified in the Ecology-approved
24 Public Participation Plan.

1 9. Retention of Records: The Boeing Company shall preserve in a readily retrievable
2 fashion, during the pendency of this Order and for ten (10) years from the date of issuance by
3 Ecology of written notification that all requirements of this Order have been satisfactorily
4 completed, all submittals to Ecology, QA/QC memoranda and audits, final work plans, final
5 reports, field notes and laboratory analytical and testing reports in its possession relevant to this
6 Order. Should any portion of the work performed thereunder be undertaken through contractors
7 or agents, The Boeing Company agrees to include in their contract(s) with all such contractors or
8 agents a record retention requirement meeting the terms of this paragraph.

9 10. Dispute Resolution: In the event a dispute arises as to a decision by Ecology's
10 Project Coordinator, the parties shall utilize the dispute resolution procedure set forth below.

11 (A) The Boeing Company shall utilize the informal dispute resolution processes
12 provided in Section VII.4 prior to proceeding with the formal dispute resolution
13 processes described in (B).

14 (B) The Boeing Company may then request Ecology management review of the
15 Ecology Project Coordinator's letter of disapproval issued at the completion of the
16 informal dispute resolution process set forth in Section VII.4. This request shall be
17 submitted in writing to the Program Manager within seven (7) days of receipt of the
18 Ecology Project Coordinator's letter of disapproval. In such case, The Boeing Company
19 shall provide the Program Manager with a written statement of its position. The Boeing
20 Company may also request an extension of the due date for any Submittal, or other
21 activity required hereunder, affected by this dispute. Ecology's Program Manager shall
22 conduct a review of the dispute, and shall issue a written decision regarding the dispute
23 within thirty (30) days of The Boeing Company's request for review. The Program
24 Manager's decision shall be Ecology's final decision on the disputed matter. If a Submittal

1 is affected by the dispute, then within thirty (30) days after receipt of the Program
2 Manager's final decision, unless a longer time is approved by Ecology, The Boeing
3 Company shall resubmit a revised Submittal which conforms to the Program Manager's
4 final decision .

5 The parties agree to utilize the dispute resolution process only in good faith and agree to
6 expedite, to the extent possible, the dispute resolution process whenever it is used.

7 Implementation of the formal dispute resolution procedures in Section VII.10(B) shall not provide
8 a basis for delay of any activities required in the Order, unless Ecology agrees in writing to a
9 schedule extension.

10 11. Reservation of Rights/No Settlement: This Agreed Order is not a settlement under
11 Chapter 70.105D RCW. Ecology's signature on this Order in no way constitutes a covenant not
12 to sue or a compromise of any Ecology rights or authority. Ecology will not, however, bring an
13 action against The Boeing Company to recover remedial action costs paid to and received by
14 Ecology under this Agreed Order. In addition, Ecology will not take additional enforcement
15 actions against The Boeing Company to require those remedial actions required by this Agreed
16 Order, provided The Boeing Company complies with this Agreed Order.

17 Ecology reserves the right, however, to require additional remedial actions at the facility
18 should it deem such actions necessary. Ecology also reserves all rights regarding the injury to,
19 destruction of, or loss of natural resources resulting from the releases or threatened releases of
20 dangerous constituents from the Boeing Renton Plant.

21 In the event Ecology determines that conditions at the facility are creating or have the
22 potential to create a threat to the health or welfare of the people on the facility or in the
23 surrounding area or to the environment, Ecology may order The Boeing Company to stop further

1 implementation of this Order for such period of time or take other action as needed to abate the
2 threat.

3 12. Transfer of Property: Prior to any voluntary conveyance or relinquishment of title,
4 easement, leasehold, or other interest in any portion of the Boeing Renton Plant , The Boeing
5 Company shall provide for continued implementation of all applicable requirements of this Order
6 and implementation of any remedial actions found to be necessary as a result of this Order.

7 Prior to any involuntary conveyance or relinquishment of an interest in any portion of the
8 Boeing Renton Plant, The Boeing Company shall use reasonable best efforts to provide for
9 continued implementation of this Order and of necessary remedial actions, and shall notify
10 Ecology if such efforts are unsuccessful. If Ecology utilizes its authority to provide for continued
11 implementation of the Order or the remedy on the portion of the Boeing Renton Plant
12 involuntarily conveyed or relinquished (e.g., if Ecology obtains access for The Boeing Company)
13 Boeing shall be responsible for such continued implementation as directed by Ecology in writing.

14 Prior to transfer of any legal or equitable interest The Boeing Company may have in the
15 Boeing Renton Plant or any portions thereof, The Boeing Company shall serve a copy of this
16 Order upon any prospective purchaser, lessee, transferee, assignee, or other successor in such
17 interest. At least ninety days prior to finalization of any transfer, The Boeing Company shall
18 notify Ecology of the contemplated transfer and of the available information, for the property to
19 be transferred, concerning SWMUs and AOCs on the property, the likelihood of releases of
20 hazardous constituents at or from the property, the likelihood of releases of hazardous
21 constituents from other portions of the Boeing Renton Plant onto the property to be transferred,
22 and the remedial actions completed or underway. Ecology shall use best reasonable efforts to
23 review the information submitted by The Boeing Company on the property to be transferred from
24 the facility, and issue a written determination within 30 days after receiving same that either (a) no

1 further action (NFA) is required regarding the property to be transferred, or (b) the property to be
2 transferred must continue to be subject to this Order due to known or suspected releases of
3 hazardous constituents at that portion of the Boeing Renton Plant. If Ecology issues a written
4 determination that an NFA is appropriate for the portion of the Boeing Renton Plant to be
5 transferred, then that portion of the property shall cease to be considered a part of the Boeing
6 Renton Plant as of the date Ecology's written determination is issued.

7 13. Compliance with Other Applicable Laws:

8 (A) All actions carried out by The Boeing Company pursuant to this Order shall be
9 done in accordance with all applicable federal, state, and local requirements, including
10 requirements to obtain necessary permits.

11 (B) The Boeing Company has a continuing obligation to determine whether permits or
12 approvals addressed in RCW 70.105D.090(1) would otherwise be required for the interim
13 and final remedial actions under this Order. In the event The Boeing Company determines
14 that permits or approvals applicable to the remedial action under this Order are exempted
15 under RCW 70.105D.090(1), it shall promptly notify Ecology of this determination.

16 Ecology shall determine whether Ecology or The Boeing Company shall be responsible to
17 contact the appropriate state and/or local agencies. If Ecology so requires, The Boeing
18 Company shall promptly consult with the appropriate state and/or local agencies and
19 provide Ecology with written documentation from those agencies of the substantive
20 requirements those agencies believe are applicable to the remedial action. Ecology shall
21 determine what, if any, substantive requirements must be met by The Boeing Company
22 and how The Boeing Company must meet those requirements. Ecology shall inform The
23 Boeing Company in writing of these requirements. Once determined by Ecology, these
24 substantive requirements shall be made enforceable requirements of this Order. The

1 Boeing Company shall not begin or continue the remedial action subject to the substantive
2 requirements until Ecology makes its final determination that the appropriate substantive
3 requirements of those agencies have been identified. Ecology shall ensure that notice and
4 opportunity for comment is provided to the public and appropriate agencies prior to
5 establishing the substantive requirements under this section.

6 (C) Pursuant to RCW 70.105D.090(2), in the event Ecology determines that the
7 exemption from the procedural requirements pursuant to RCW 70.105D.090(1) would
8 result in the loss of approval from a federal agency which is necessary for the State to
9 administer any federal law, the exemption shall not apply and The Boeing Company shall
10 comply with both the procedural and substantive requirements of the laws referenced in
11 RCW 70.105D.090(1), including any requirements to obtain permits.

12 14. Extension of Schedule: The Boeing Company may request an extension of any
13 deadline or schedule set forth in this Order or an approved Submittal. Any such request shall be
14 submitted in writing to Ecology's Project Coordinator at least twenty (20) days in advance of the
15 pending deadline, if possible. The request shall specify the reason(s) the extension is needed.

16 An extension shall only be granted for such period of time as Ecology determines is
17 reasonable under the circumstances. A requested extension shall not be effective until approved
18 by Ecology. Ecology shall act upon any written request for extension in a timely fashion. It shall
19 not be necessary to formally amend this Order when a schedule extension is granted.

20 The burden shall be on The Boeing Company to demonstrate that the extension has been
21 submitted in a timely fashion and that good cause exists for granting the extension. Good cause
22 includes, but is not limited to, the following:

23 (A) Unforeseeable circumstances beyond the reasonable control of The Boeing
24 Company or any person or entity controlled by The Boeing Company that delays or

1 prevents the timely performance of any obligation under this Order despite The Boeing
2 Company's best efforts to fulfill the obligation; or

3 (B) Acts of God, including fire, flood, blizzard, extreme temperatures, storm, or other
4 unavoidable casualty.

5 Neither increased costs of performance nor changed economic circumstances shall be
6 considered circumstances beyond the reasonable control of The Boeing Company.

7 Ecology shall give The Boeing Company written notification in a timely fashion of any
8 extensions granted pursuant to this section. The period of delay approved by an extension under
9 this section shall be an "excused delay" which is not subject to Stipulated Penalties under Section
10 VIII.

11 VIII. STIPULATED PENALTIES

12 Except for excused delays described in Subsections 4, 10 and 14 of Section VII.14, for
13 each day The Boeing Company fails to comply with any time schedules contained within
14 Section VI of this Agreed Order, or any other time schedules approved or modified in writing by
15 Ecology hereunder, The Boeing Company stipulates and agrees that Ecology may, at its
16 discretion, assess a civil penalty. The penalties to be assessed are as follows:

17 1. For failure to commence or complete field work by the time required by this Order;
18 and for failure to complete or submit any Workplans or reports in the manner or by the time
19 required by this Order: \$500.00 per day for each of the first seven (7) days of delay; \$1,000.00
20 per day for the eighth (8th) through fourteenth (14th) days of delay; \$5,000.00 per day for the
21 fifteenth (15th) through thirtieth (30th) days of delay; and \$10,000 for the thirty-first (31st)
22 through ninetieth (90th) days of delay.

23 2. For failure to submit other written Submittals not described above by the time
24 required, pursuant to this Order: \$250.00 per day for each of the first seven (7) days of delay;

1 \$500.00 per day for the eighth (8th) through fourteenth (14th) days of delay; \$2,500.00 per day
2 for the fifteenth (15th) through thirtieth (30th) days of delay; and \$5,000.00 for the thirty-first
3 (31st) through ninetieth (90th) days of delay. Ecology retains its entire right to issue penalties or
4 orders for damages or for any other actions that are not covered by this section. Issuance of
5 penalties under this section shall preclude Ecology from issuing any other penalties for that
6 violation.

7 Should a penalty be assessed under this section, the penalty shall begin to accrue from the
8 date on which the work was to have been performed, or the submittal was to have been made, and
9 shall cease to accrue on the date The Boeing Company performs the required work or delivers the
10 required submittal to Ecology. The assessment of penalties shall be subject to the Dispute
11 Resolution procedures specified in Section VII.10, except that the amount of a stipulated penalty
12 is not subject to challenge. Penalties shall accrue but not become payable until after dispute
13 resolution procedures are completed. All penalties will be payable within forty-five (45) days of
14 assessment, or the completion of Dispute Resolution procedures if applicable, to the Department
15 of Ecology, Cashiering Section, PO Box 5128, Lacey, WA 98503-0210.

16 3. The Boeing Company shall not be liable for payment of penalties if The Boeing
17 Company has submitted to Ecology a timely request for an extension of schedule, and if Ecology
18 has received the written request, and has not denied the request in writing.

19 IX. SATISFACTION OF THIS ORDER

20 The provisions of this Order shall be deemed satisfied upon The Boeing Company's
21 receipt of written notification from Ecology that The Boeing Company has completed the
22 corrective actions required by this Order, as amended by any modifications, and that The Boeing
23 Company has complied with all other provisions of this Agreed Order. Ecology shall determine

1 whether the terms hereof have been satisfied, and notify The Boeing Company in writing of same,
2 within a reasonable time after either determining that no CAP is required or issuing a final CAP.

3 X. AMENDMENTS

4 Ecology and The Boeing Company may modify this Agreed Order by mutual written
5 agreement. Substantial modification may require additional public notice and opportunity to
6 comment. Ecology will determine if the Agreed Order modifications are substantial, thus
7 requiring additional public notice and opportunity to comment.

8 XI. ENFORCEMENT

9 1. Pursuant to RCW 70.105D.050, this Order may be enforced as follows:

10 (A) The Attorney General may bring an action to enforce this Order in a state or
11 federal court.

12 (B) The Attorney General may seek to recover, by filing an action if necessary, the
13 amounts spent by Ecology for investigative and remedial actions and orders related to the
14 facility.

15 (C) In the event The Boeing Company refuses, without sufficient cause, to comply
16 with any term of this Order, The Boeing Company will be liable for:

17 (i) up to three times the amount of any costs incurred by the state of
18 Washington as a result of its refusal to comply; and

19 (ii) civil penalties of up to \$25,000 per day for each day it refuses to comply.

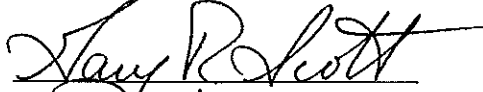
1 (D) This Order is not appealable to the Washington Pollution Control Hearings Board.

2 This Order may be reviewed only as provided under RCW 70.105D.060.

3 Effective date of this Order: October 10, 1997

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5

6 THE BOEING COMPANY, by, through and for its
7 BOEING COMMERCIAL AIRPLANE GROUP
8 RENTON PLANT
9 By: Gary R. Scott
10 Vice-President/General Manager

11 

12 Date 10/1/97

13
14
15

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
By: Julie Sellick, Section Manager
Hazardous Waste and Toxics
Reduction
Northwest Regional Office



Date 10/10/97