

WASHINGTON DEPARTMENT OF ECOLOGY
MAIL STOP 47600
OLYMPIA WASHINGTON 98504-7600

4 IN THE MATTER OF:]
5] NO. PSD-97-02
6 BOEING COMMERCIAL AIRPLANES] FINAL DETERMINATION
7 800 LOGAN AVENUE NORTH] OF APPROVAL OF
8 RENTON, WASHINGTON 98055] PSD APPLICATION

9 Pursuant to Environmental Protection Agency (EPA) regulations for the Prevention of
10 Significant Deterioration (PSD) set forth in Title 40, Code of the Federal Regulations Part 52, the
11 Washington Clean Air Act 70.94 RCW and WAC 173-400-141, and based upon the complete
12 application submitted by Boeing Commercial Airplanes in September, 1997, Ecology now finds
13 the following:

14 FINDINGS

- 15 1. Boeing Commercial Airplanes proposes to modify the existing 4-86 Building located at
16 the Renton Facility, 800 Logan Avenue North, Renton, Washington. The major
17 operations performed in this building are the cleaning, sealing and painting of wings for
18 Model 737 Classic, 737 Next Generation, and 757 airplanes.
- 19 2. Boeing Commercial Airplanes proposes to modify the building for increased production
20 of aircraft wings in order to raise monthly production capacity of the Renton Facility from
21 32 to 41 airplanes per month. The proposed project involves installation of four
22 additional sliding doors, air handling equipment and ductwork to allow each of eight
23 paint positions (PPs) to operate independently. Production capacity, and the potential to
24 emit air pollutants, will not increase with installation of the doors, but will increase with
25 the installation of the air handling equipment and ductwork.
- 26 3. The Boeing Renton facility qualifies as a major source because it has the potential to emit
27 more than 250 tons per year of volatile organic compounds (VOC). The proposed
28 modification to the 4-86 Building has the potential to increase VOC emissions more than
29 40 tons per year and qualifies as a major modification.
- 30 4. The proposed site is within an area that is in attainment as regards to the state and
31 national ambient air quality standards for ozone.

- 32 5. The proposed modifications to the 4-86 Building at the Boeing, Renton facility are
33 subject to PSD review.
- 34 6. The project is located in an area which has been designated Class II for the purposes of
35 PSD evaluation under 40 CFR 52.21.
- 36 7. Best available control technology (BACT) for the cleaning and painting inside the 4-86
37 Building has been determined to be good manufacturing and work practices. These
38 practices include:
- 39 a) The containment of spent solvent cleaning rags,
 - 40 b) Low pressure application of bulk solvent,
 - 41 c) The use of high transfer efficiency coating application methods such as:
42 electrostatic/electrodeposition, high volume low pressure (HVLP), dip, flow,
43 brush/roll, and
 - 44 d) A method of paint gun cleaning approved by the Puget Sound Air Pollution
45 Control Agency (PSAPCA).
- 46 8. The 4-86 Building, modified as proposed in the PSD Application, will have the potential
47 to emit up to 242 tons of VOC per year. The proposed modifications to the 4-86 building
48 will allow expanded use of the entire Boeing Renton facility such that it will have the
49 potential to emit up to 549 tons of VOC per year. Actual VOC emissions from the Boeing
50 Renton facility, based upon an average of 1993 and 1994 production, were 183 tons of
51 VOC per year. The net potential increase in VOC emissions from the Boeing Renton
52 facility will be up to 366 tons per year.
- 53 9. The project will have no significant impact on ambient air quality.
- 54 10. The project is anticipated to have no noticeable effect on industrial, commercial or
55 residential growth in the Renton area.
- 56 11. Visibility will not be impaired in any Class I area due to the proposed emissions.
- 57 12. Ambient pollutant concentrations in any Class I area are not predicted to change due to
58 the project.

59 13. Ecology finds that all requirements for PSD have been satisfied. Approval of the PSD
60 application is granted subject to the following conditions.

61 APPROVAL CONDITIONS

62 1. Emissions of VOC from the 4-86 Building shall not exceed 3.0 tons per day. Compliance
63 with the daily VOC emission limit shall be assured by limiting daily production rate of
64 the 4-86 Building to no more than 12 aircraft wings per day. Identification of wing
65 production rates shall be based on records for wings completing the final painting process
66 in the 4-86 building.

67 2. Emissions of VOC from the 4-86 Building shall not exceed 242 tons per year. VOC
68 emission rates from the 4-86 Building shall be calculated using a mass balance approach,
69 taking into account production parameters such as material purchase and usage, waste
70 disposal and appropriate application of control efficiency assumptions; or other
71 equivalent method as approved by PSAPCA.

72 3. Boeing Commercial Airplanes shall report to PSAPCA, in a manner approved by
73 PSAPCA, the maximum number of airplane wings produced on any day and the total
74 amount of VOC emissions from the 4-86 Building in accordance with the requirements of
75 WAC 173-401-615.

76 4. The following work practices shall be employed in the 4-86 Building.

77 a) Spent solvent cleaning rags shall be deposited in closed containers operated in
78 accordance with Chapter 173-303 WAC for the accumulation and disposal of
79 solvent wipes.

80 b) Bulk application of solvents shall be by low-pressure hose, unless such solvents
81 contain at least 60 percent water as applied.

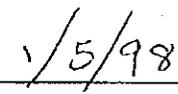
82 c) High transfer efficiency coating application methods such as
83 electrostatic/electrodeposition, high volume low pressure (HVLP), dip, flow,
84 brush/roll or other equivalent methods approved by PSAPCA shall be used.

85 d) Paint guns shall be cleaned by a method approved by PSAPCA.

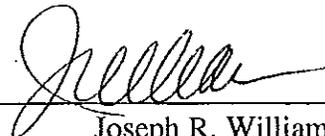
- 86 5. Each occurrence of calculated emissions in excess of established limits shall be reported
87 at least monthly within thirty days of the end of each calendar month to PSAPCA. The
88 information shall include but not be limited to the following:
- 89 a) The date(s) of the occurrence.
 - 90 b) Magnitude of the emission or process parameters excess.
 - 91 c) The duration of the excess.
 - 92 d) The probable cause.
 - 93 e) Any corrective actions taken or planned.
 - 94 f) Any other agency contacted.
- 95 6. This approval shall become void if modification of the 4-86 Building is not commenced
96 within eighteen (18) months after receipt of final approval, or if modification of the 4-86
97 Building is discontinued for a period of eighteen (18) months.
- 98 7. Any activity, which is undertaken by the company or others, in a manner that is
99 inconsistent with the application and this determination, shall be subject to Ecology
100 enforcement under applicable regulations.

101 Reviewed by:

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103 _____
104 Alan T. Butler, P.E.
105 Air Quality Program
106 Washington Department of Ecology
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110 Date

108 Approved by:

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111 Joseph R. Williams
112 Manager, Air Quality Program
113 Washington Department of Ecology
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117 Date