IN THE MATTER OF:  

BOEING COMMERCIAL AIRPLANES  

800 LOGAN AVENUE NORTH  

RENTON, WASHINGTON 98055  

NO. PSD-97-02  

FINAL DETERMINATION  

OF APPROVAL OF  

PSD APPLICATION  

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

FINDINGS

1. Boeing Commercial Airplanes proposes to modify the existing 4-86 Building located at the Renton Facility, 800 Logan Avenue North, Renton, Washington. The major operations performed in this building are the cleaning, sealing and painting of wings for Model 737 Classic, 737 Next Generation, and 757 airplanes.

2. Boeing Commercial Airplanes proposes to modify the building for increased production of aircraft wings in order to raise monthly production capacity of the Renton Facility from 32 to 41 airplanes per month. The proposed project involves installation of four additional sliding doors, air handling equipment and ductwork to allow each of eight paint positions (PPs) to operate independently. Production capacity, and the potential to emit air pollutants, will not increase with installation of the doors, but will increase with the installation of the air handling equipment and ductwork.

3. The Boeing Renton facility qualifies as a major source because it has the potential to emit more than 250 tons per year of volatile organic compounds (VOC). The proposed modification to the 4-86 Building has the potential to increase VOC emissions more than 40 tons per year and qualifies as a major modification.

4. The proposed site is within an area that is in attainment as regards to the state and national ambient air quality standards for ozone.
5. The proposed modifications to the 4-86 Building at the Boeing, Renton facility are subject to PSD review.

6. The project is located in an area which has been designated Class II for the purposes of PSD evaluation under 40 CFR 52.21.

7. Best available control technology (BACT) for the cleaning and painting inside the 4-86 Building has been determined to be good manufacturing and work practices. These practices include:
   a) The containment of spent solvent cleaning rags,
   b) Low pressure application of bulk solvent,
   c) The use of high transfer efficiency coating application methods such as: electrostatic/electrodeposition, high volume low pressure (HVLP), dip, flow, brush/roll, and
d) A method of paint gun cleaning approved by the Puget Sound Air Pollution Control Agency (PSAPCA).

8. The 4-86 Building, modified as proposed in the PSD Application, will have the potential to emit up to 242 tons of VOC per year. The proposed modifications to the 4-86 building will allow expanded use of the entire Boeing Renton facility such that it will have the potential to emit up to 549 tons of VOC per year. Actual VOC emissions from the Boeing Renton facility, based upon an average of 1993 and 1994 production, were 183 tons of VOC per year. The net potential increase in VOC emissions from the Boeing Renton facility will be up to 366 tons per year.

9. The project will have no significant impact on ambient air quality.

10. The project is anticipated to have no noticeable effect on industrial, commercial or residential growth in the Renton area.

11. Visibility will not be impaired in any Class I area due to the proposed emissions.

12. Ambient pollutant concentrations in any Class I area are not predicted to change due to the project.
13. Ecology finds that all requirements for PSD have been satisfied. Approval of the PSD application is granted subject to the following conditions.

APPROVAL CONDITIONS

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

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

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

4. The following work practices shall be employed in the 4-86 Building.
   a) Spent solvent cleaning rags shall be deposited in closed containers operated in accordance with Chapter 173-303 WAC for the accumulation and disposal of solvent wipes.
   b) Bulk application of solvents shall be by low-pressure hose, unless such solvents contain at least 60 percent water as applied.
   c) High transfer efficiency coating application methods such as electrostatic/electrodeposition, high volume low pressure (HVLP), dip, flow, brush/roll or other equivalent methods approved by PSAPCA shall be used.
   d) Paint guns shall be cleaned by a method approved by PSAPCA.
5. Each occurrence of calculated emissions in excess of established limits shall be reported
at least monthly within thirty days of the end of each calendar month to PSAPCA. The
information shall include but not be limited to the following:

a) The date(s) of the occurrence.
b) Magnitude of the emission or process parameters excess.
c) The duration of the excess.
d) The probable cause.
e) Any corrective actions taken or planned.
f) Any other agency contacted.

6. This approval shall become void if modification of the 4-86 Building is not commenced
within eighteen (18) months after receipt of final approval, or if modification of the 4-86
Building is discontinued for a period of eighteen (18) months.

7. Any activity, which is undertaken by the company or others, in a manner that is
inconsistent with the application and this determination, shall be subject to Ecology
enforcement under applicable regulations.

Reviewed by:

[Signature]
Alan T. Butler, P.E.
Air Quality Program
Washington Department of Ecology

Approved by:

[Signature]
Joseph R. Williams
Manager, Air Quality Program
Washington Department of Ecology