IN THE MATTER OF:

Tenaska Washington Partners, L.P.  NO. PSD 91-04 AMENDMENT 1
5105 Lake Terrell Road  FINAL APPROVAL
Ferndale, WA 98248

Pursuant to the U.S. Environmental Protection Agency (EPA) regulations for the Prevention of Significant Deterioration (PSD) set forth in Title 40, Code of the Federal Regulations, Part 52 and regulations set forth in the Washington Administrative Code 173-400-141 and based on the complete PSD application submitted by Tenaska Washington Inc., the technical analysis performed by the Washington State Department of Ecology (Ecology), dated May 18, 1992, and the June 12, 1998, application to amend the May 1992 permit, the department now finds the following:

FINDINGS

1. In May 1992, Tenaska Washington Inc. obtained PSD Permit 91-04 to build a new combined cycle cogeneration facility adjacent to the Tosco (formerly BP Oil) refinery near Ferndale. The project consisted of two natural gas fired combustion turbines, two heat recovery steam generators with supplemental firing capability, and one steam turbine. Two auxiliary boilers and an auxiliary power generator were planned to be constructed for standby service. The facility would provide electrical power to Puget Sound Energy (formerly Puget Sound Power and Light) and steam to the Tosco refinery.

2. In June 1998, several permit changes were requested. These included eliminating references to equipment never installed (two auxiliary boilers, one standby diesel generator) and a fuel never used (refinery gas), clarifying permit language, clarifying reporting requirements, and allowing an alternative monitoring method for ammonia and CO if emission levels are well below permitted limits.

3. The Tenaska Washington Project qualified as a major source because it would emit more than 100 tons (90.7 megagrams) per year of nitrogen oxides, carbon monoxide, and sulfur dioxide. It is located in an area which is designated Class II for the purposes of PSD evaluation under 40 CFR 52.21 dated July 1, 1990.

4. The emission of NOx from the duct burners is subject to new source performance standards in Title 40 Code of Federal Regulations (CFR) Part 60, Subpart Db as of July 1, 1990. The emissions from the combustion turbines are subject to 40 CFR Part 60 Subpart GG as of July 1, 1990.

5. The site is within an area that is in attainment with regards to the state and national air quality standards.
6. The facility has the potential to emit (PTE) up to 342 tons (310 megagrams) per year of nitrogen oxides. PTE of equipment that was originally permitted but not installed has been deleted from the original 491 tons (445 megagrams) per year PTE value.

7. The facility has the potential to emit up to 366 tons (332 megagrams) per year of carbon monoxide. PTE of equipment that was originally permitted but not installed has been deleted from the original 473 tons (429 megagrams) per year PTE value.

8. The facility has the potential to emit up to 100 tons (90.7 megagrams) per year of sulfur dioxide. PTE of equipment that was originally permitted but not installed has been deleted from the original 188 tons (171 megagrams) per year PTE value.

9. The facility has the potential to emit up to 82 tons (74 megagrams) per year of volatile organic compounds (VOC). PTE of equipment that was originally permitted but not installed has been deleted from the original 91 (83 megagrams) tons per year PTE value.

10. The facility has the potential to emit up to 74 tons (67 megagrams) per year of total particulate matter (PM). PTE of equipment that was originally permitted but not installed has been deleted from the original 95 tons (86 megagrams) per year PTE value.

11. The facility has the potential to emit up to 70 tons (64 megagrams) per year of particulate matter less than 10 micrometers (PM$_{10}$). PTE of equipment that was originally permitted but not installed has been deleted from the original 87 tons (80 megagrams) per year PTE value.

12. The emissions of nitrogen oxides, carbon monoxide, sulfur dioxide, VOC, PM, and PM$_{10}$ are subject to PSD review.

13. Best available control technology (BACT) will be used to control air pollutants from the proposed project.

14. The project nitrogen oxides (as NO$_2$) emissions will consume up to 1.3 $\mu$g/m$^3$ of the 25 $\mu$g/m$^3$ PSD increment. The project will have no other significant adverse impact on air quality.

15. The project is anticipated to have no noticeable affect on industrial, commercial, or residential growth.

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

17. Ambient pollutant concentrations in any Class I area are not predicted to change due to the project.

18. 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. NO\textsubscript{X} emissions from each gas turbine/heat recovery steam generator system stack when gas is fired shall not exceed 7 parts per million on a volume basis (ppmdv) corrected to 15 percent oxygen on a daily average, and also shall not exceed 33 pounds (15 kilograms) per hour on a daily average. NO\textsubscript{X} emissions from each gas turbine/heat recovery steam generator system stack when oil is fired shall not exceed 12 ppmdv corrected to 15% O\textsubscript{2} on a daily average, and also shall not exceed 60 pounds (27 kilograms) per hour on a daily average. Initial compliance shall be determined by EPA Reference Method 20 of 40 CFR Part 60, Appendix A as of July 1, 1990. Compliance shall also be determined for each stack by a continuous emission monitoring system (CEMS) which meets the requirements of Condition 8.

2. CO emissions from each gas turbine/heat recovery steam generator system stack shall not exceed 20 ppmdv corrected to 15% O\textsubscript{2} on an hourly average. CO emissions from each gas turbine/heat recovery steam generator system stack shall not exceed 44 pounds (20 kilograms) per hour. Compliance shall be determined by annual EPA Reference Method 10 or 10A of 40 CFR Part 60, Appendix A as of July 1, 1990. A test plan shall be submitted for Ecology approval at least 30 days prior to annual testing.

3. The gas turbines shall burn either pipeline natural gas or No. 2 fuel oil with sulfur content of no more than 0.05 weight percent. The heat recovery steam generator duct burners shall burn only pipeline natural gas. The facility may burn no more than 20.4 million gallons (77.2 million liters) of low sulfur No. 2 fuel oil per calendar year. Tenaska shall maintain records of fuel oil usage and sulfur content as required by Ecology.

4. SO\textsubscript{2} emissions from each gas turbine/heat recovery steam generator system stack when gas is burned in the turbines shall not exceed 12 pounds (5.4 kilograms) per hour on an hourly average. SO\textsubscript{2} emissions from each gas turbine/heat recovery steam generator system stack when fuel oil is burned in the turbines shall not exceed 59 pounds (27 kilograms) on an hourly average. Initial compliance shall be determined by EPA Reference Method 6 of 40 CFR Part 60 Appendix A as of July 1, 1990, or an equivalent method approved by Ecology.

5. PM\textsubscript{10} emissions from each gas turbine/heat recovery steam generator system stack when gas or fuel oil is burned in the turbines shall not exceed 0.0022 grain per dry standard cubic foot (0.0050 grams per dry cubic meter) corrected to 15 percent oxygen (gr/DSCF at 15% O\textsubscript{2}) and shall not exceed 13 pounds (5.9 kilograms) on an hourly average. Compliance shall be determined by EPA Reference


7. Opacity from each gas turbine/heat recovery steam generator system stack shall not exceed 5 percent as measured by EPA Reference Method 9 of 40 CFR Part 60, Appendix A as of July 1, 1990.

8. Any CEMS used by Tenaska to measure NO\textsubscript{x} or O\textsubscript{2} emissions shall, at a minimum, conform to EPA Title 40 Code of the Federal Regulations, Part 60, Appendix B Performance Specifications as of July 1, 1990. In addition, before initial start-up a continuous emission monitoring quality control plan conforming with 40 CFR 60 Appendix F and acceptable to Ecology shall be made available and Ecology may require the plan to be periodically updated.

9. CEMS and process data shall be reported in written form to the Northwest Air Pollution Authority (NWAPA) and Ecology at least monthly (unless a different testing and reporting schedule has been approved by Ecology) within thirty days of the end of each calendar month and in a format approved by Ecology. For each occurrence of monitored emissions in excess of the standard the report shall include the following:

9.1. The time of the occurrence.

9.2. Magnitude of the emission or process parameters excess.

9.3. The duration of the excess.

9.4. The probable cause.

9.5. Corrective actions taken or planned.

10. Within 60 days after achieving maximum production, but not later than 180 days after startup, Tenaska shall conduct performance tests for NO\textsubscript{x}, SO\textsubscript{2}, CO, VOC, PM\textsubscript{10}, opacity, and ammonia on each combustion turbine, to be performed by an independent testing firm. A test plan shall be submitted for Ecology approval at least 30 days prior to testing.

11. Tenaska must participate in an ambient air monitoring program directed by the U. S. Forest Service in consultation with Ecology.

12. Operation of the equipment must be conducted in compliance with all data and specifications submitted as part of the PSD application unless otherwise approved by Ecology.
13. This approval shall become void if construction of the project is not commenced within eighteen (18) months after receipt of final approval, or if construction of the project is discontinued for a period of eighteen (18) months.

14. Any activity undertaken by Tenaska Washington or others, in a manner that is inconsistent with the application and this determination, shall be subject to enforcement under applicable regulations. Nothing in this determination shall be construed so as to relieve Tenaska Washington of its obligations under any state, local, or federal laws or regulations.

15. Tenaska Washington shall notify the department in writing at least thirty days prior to startup.

16. Access to the facility by the U.S. Environmental Protection Agency (EPA), department, state or local regulatory personnel shall be permitted upon request for the purpose of compliance assurance inspections. Failure to allow access is grounds for enforcement under federal and state law.

Reviewed by:

__________________________  __________________________
Robert C. Burmark, P.E.  Date 11/12/99
Engineering and Technical Services
Washington Department of Ecology

Approved by:

__________________________  __________________________
Mary E. Burg  Date 11/17/99
Program Manager, Air Quality Program
Washington Department of Ecology

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Barbara McAllister  Date 1/19/00
Director, Office of Air Quality
US Environmental Protection Agency Region 10
### Summary of Permit Conditions for each Gas Turbine/Heat Recovery Steam Generator Stack

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Permit Limit</th>
<th>Averaging Time</th>
<th>Approved Test Method</th>
<th>Source Test Frequency</th>
<th>Reporting Frequency</th>
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</table>
| **NOₓ**   | Natural Gas Fired¹:  
7 ppmvdv @ 15% O₂ and  
33 lb/hr (15 Kg/hr)  
(Duct burners may burn gas only, not oil)  
Oil Fired²:  
12 ppmvdv @ 15% O₂ and  
60 lb/hr (27 Kg/hr) | Daily | RM 20, CEM | Initial Annual RATA | Monthly |
| **CO**    | 20 ppmvdv @ 15% O₂  
44 lb/hr (20 Kg/hr) | Hourly | RM 10 or 10A, | Annual | Annual |
| **SO₂**   | Natural Gas Fired:  
12 lb/hr (5.4 Kg/hr)  
Oil Fired:  
59 lb/hr (27 Kg/hr) | Hourly | RM 6, Fuel monitoring | Initial test and fuel monitoring | Monthly |
| **PM₁₀**  | 0.0022 grains per dry standard cubic foot  
(0.0050 grams per standard cubic meter) @ 15% O₂  
13 lb/hr (5.9 Kg/hr) | Hourly | RM 5, RM 201 or 201A, or equivalent method approved by Ecology | Initial | Annual |
| **VOC**   | 15 lb/hr (6.8 Kg/hr) | Hourly | RM 25A or equivalent method approved by Ecology | Initial | Annual |
| **Opacity** | 5% | | RM 9 | | Monthly |

1. “Natural Gas fired” means combusting pipeline quality natural gas only
2. “Oil Fired” means combusting No. 2 fuel oil with sulfur content of no more than 0.05 weight percent. The two turbines in total are limited to combusting 20.4 million gallons (77.2 million liters) of oil per calendar year.
3. This table is a summary of the permit’s conditions. If there is a conflict between this table and a permit provision, the written permit provision takes precedence.