



Air Quality Permitting Statement of Basis

June 14, 2005

Permit to Construct No. P-050002

**Idaho Power Company
Bennett Mountain Power Plant
Mountain Home**

Facility ID No. 039-00025

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FINAL

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Acronyms, Units, and Chemical Nomenclature

AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
BMPP	Bennett Mountain Power Project
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Idaho Department of Environmental Quality
dscf	dry standard cubic feet
EPA	U.S. Environmental Protection Agency
gr	grain (1 lb = 7,000 grains)
HAPs	hazardous air pollutants
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
lb/hr	pound per hour
MACT	Maximum Achievable Control Technology
Mountain View	Mountain View Power, Inc.
MW	megawatt
NESHAP	Nation Emission Standards for Hazardous Air Pollutants
NO _x	nitrogen oxides
NSPS	New Source Performance Standards
PM	particulate matter
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
ppmv	parts per million by volume
PSD	Prevention of Significant Deterioration
PTC	permit to construct
RATA	Relative Accuracy Test Audit
SO ₂	sulfur dioxide
T/yr	tons per year
TAPs	toxic air pollutants
VOC	volatile organic compound

1. PURPOSE

The purpose for this memorandum is to satisfy the requirements of IDAPA 58.01.01.200, *Rules for the Control of Air Pollution in Idaho*, for issuing permits to construct (PTCs), and IDAPA 58.01.01.209.04, *Revisions of Permits to Construct*.

This permit revises the following:

- shows the change of ownership of the Bennett Mountain Power Plant from Mountain View Power, Inc. to the Idaho Power Company; and,
- updates the permit to reflect recently promulgated changes to 40 CFR 60, Subpart GG: *Standards of Performance for Stationary Gas Turbines* (40 CFR 60.330 et. seq.).

2. FACILITY DESCRIPTION

This facility is a 170-megawatt (170-MW) Siemens Westinghouse Model 501F combustion turbine. Operations at the facility also require ancillary facilities (e.g., a fuel heater). The turbine is a natural gas-fired, simple-cycle unit, and is primarily operated to generate electric power to meet peak system load requirements.

3. FACILITY / AREA CLASSIFICATION

The facility is classified as a major facility in accordance with IDAPA 58.01.01.008.10.c because it emits or has the potential to emit PM₁₀, CO, NO_x, and VOCs at rates greater than 100 T/yr. The facility is not a designated facility as defined by IDAPA 58.01.01.006.27. The Standard Industrial Classification code for the facility is 4911 (i.e., a simple-cycle gas turbine power generation facility).

The facility is located outside the city of Mountain Home, in AQCR 63, and UTM Zone 11. The facility is located in Elmore County, which is currently unclassified for all criteria air pollutants.

The Aerometric Information Retrieval System (AIRS) information provided in Appendix A defines the classification for each regulated air pollutant at the facility.

4. APPLICATION SCOPE

4.1 Previous Applications Chronology

September 22, 2003	DEQ received a PTC application from Mountain View for the Mountain Home Energy Project. This application was tracked Project No. P-030057.
October 23, 2003	DEQ received the revised application for BMPP. This application has been assigned Project No. P-030060.
March 19, 2004	DEQ issues PTC No. P-030060 to Mountain View Power for the Bennett Mountain Power Plant.

4.2 Current Application Chronology

February 2, 2005	Mountain View Power requests a permit revision to reflect the revised NSPS Subpart GG standards for stationary gas turbines.
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March 24, 2005 Idaho Power Company acquires ownership of the facility from Mountain View Power.
May 5, 2005 Draft PTC issued to Idaho Power.

5. PERMIT ANALYSIS

This section describes the regulatory requirements for this PTC revision.

5.1 Emissions Inventory

No emissions inventory was necessary for this permit revision because emissions are not increasing.

5.2 Modeling

No modeling was necessary for this permit revision because emissions are not increasing.

5.3 Regulatory Review

This section discusses and documents DEQ’s regulatory analysis of the proposed project with respect to applicable provisions of the Rules for the Control of Air Pollution in Idaho:

IDAPA 58.01.01.209.04..... Revisions of Permit to Construct

This PTC revision shows change in ownership of the facility and also revises the permit to reflect changes to 40 CFR 60, Subpart GG for stationary gas turbines.

40 CFR 60 New Source Performance Standards

The New Source Performance Standard (NSPS) requirements of 40 CFR 60.330, Subpart GG, apply to all stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules per hour, for which construction commences after October 3, 1977. Idaho Power Company’s Bennett Mountain Power Plant combustion turbine meets the applicability criteria given by 40 CFR 60.330; therefore, the turbine is subject to 40 CFR 60, Subpart GG.

5.4 Fee Review

Mountain View paid the \$1,000 application fee required by IDAPA 58.01.01.224 on February 2, 2005. In accordance with IDAPA 58.01.01.225, a PTC processing fee of \$250 is required for permit revisions where no engineering analysis is required. The PTC processing fee was received on June 1, 2005.

Table 5.1 EMISSIONS INVENTORY

Emissions Inventory			
Pollutant	Annual Emissions Increase (T/yr)	Annual Emissions Reduction (T/yr)	Annual Emissions Change (T/yr)
NO _x	0	0	0
SO ₂	0	0	0
CO	0	0	0
PM ₁₀	0	0	0
VOC	0	0	0
TAPS/HAPS	0	0	0
Total:	0	0	0
Fee Due	\$ 250.00	0	0

*TAPs and HAPs increases are included in the VOC increases

Idaho Power Company's Bennett Mountain Power Plant is a Tier I major facility as defined by IDAPA 58.01.01.008.10. Registration fees are applicable in accordance with IDAPA 58.01.01.387.

6. PERMIT CONDITIONS

This section summarizes and explains the monitoring permit condition revision in the PTC.

It should be noted that several monitoring, recordkeeping, and reporting requirements derived from NSPS and/or Acid Rain Program provisions allow multiple, alternative methods for demonstrating compliance with applicable standards. Since the facility is not yet operational, the permit application did not specify a preferred method for the compliance demonstration; therefore, many of these requirements have been incorporated into the PTC by reference to allow operational flexibility for the facility (i.e., in these specific instances, the permittee may elect which compliance method to use at the facility, so long as the method meets applicable federal criteria). The specific method(s) of compliance used by the facility, after startup of the turbine, will eventually be incorporated into a Tier I permit (refer to Section 7 of this document) as specific permit conditions.

6.1 Combustion Turbine Conditions

Fuel Monitoring – New Source Performance Standard – Permit Condition 3.15

Revisions to NSPS Subpart GG allow more flexibility in determining the sulfur content of fuel. The permit condition was changed to allow the source to determine which method will be used to monitor fuel sulfur content.

The NSPS Subpart GG revision no longer requires sources to monitor nitrogen if they do not claim an allowance for fuel bound nitrogen.

The permittee is also allowed, upon EPA approval and DEQ notification, to use the procedures in 40 CFR 75, Appendix D, to monitor the fuel sulfur content.

7. PERMIT COORDINATION

Permit Condition 2.9.1 requires the permittee to submit a Tier I permit application within 12 months of operational startup of the combustion turbine.

As indicated previously, the combustion turbine is subject to the Acid Rain Program, and is required to submit a Phase II Acid Rain permit application. Permit Condition 2.9.2 of the PTC requires the facility to comply with the acid rain permit application requirements of 40 CFR 72.9(a) and 40 CFR 72, Subpart C.

8. PUBLIC COMMENT

An opportunity for public comment is not required for this permit revision because emissions are not increasing.

9. RECOMMENDATION

Based on review of application materials and all applicable state and federal rules and regulations, staff recommends that final PTC No. P-050002 be issued to Idaho Power Company for this permit revision.

BR/CM/sd

Permit No. P-050002

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APPENDIX A

**Idaho Power Company
P-050002**

Aerometric Information Retrieval System Information

AEROMETRIC INFORMATION RETRIEVAL SYSTEM INFORMATION

Table C.1 AIRS/AFS^a FACILITY-WIDE CLASSIFICATION^b DATA ENTRY FORM

AIR PROGRAM	SIP	PSD	NSPS (Part 60)	NESHAP (Part 61)	MACT (Part 63)	TITLE V	AREA CLASSIFICATION
POLLUTANT							A – Attainment U – Unclassifiable N – Nonattainment
SO ₂	B		B				U
NO _x	A	SM	A			A	U
CO	A	SM				A	U
PM ₁₀	A					A	U
PT (Particulate)	A					A	U
VOC	A					A	U
THAP (Total HAPs)	B						U
			APPLICABLE SUBPART				
			GG				

^a Aerometric Information Retrieval System (AIRS) Facility Subsystem (AFS)

^b AIRS/AFS Classification Codes:

- A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For NESHAP only, class "A" is applied to each pollutant which is below the 10 T/yr threshold, but which contributes to a plant total in excess of 25 T/yr of all NESHAP pollutants.
- SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.
- B = Actual and potential emissions below all applicable major source thresholds.
- C = Class is unknown.
- ND = Major source thresholds are not defined (e.g., radionuclides).