Air Quality Permitting
Statement of Basis

March 9, 2007

Permit to Construct No. P-060065

Idaho Power Company
Evander Andrews Complex
Mountain Home

Facility ID No. 039-00024

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FINAL

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Acronyms, Units, and Chemical Nomenclature

AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
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).

2. FACILITY DESCRIPTION

The Idaho Power Company (Idaho Power) operates the Evander Andrews Complex located near Mountain Home, Idaho. This is an electric power generating facility which currently utilizes two existing advanced Siemens-Westinghouse (S-W) 251B12A, simple cycle combustion turbines and generators. The heat input for each turbine is approximately 508 MMBtu/hr and the generating capacity is approximately 52 megawatts each. Both turbines are identical in design, fired only with natural gas, and are equipped with dry low NO_x (DLN) burners. DLN burners combust a leaner mixture of fuel and air, thereby lowering the peak temperature and NO_x emissions. During warm weather, evaporative cooling and inlet air fogging may be used to cool the turbine inlet air. Natural gas flow rates are measured continuously by a certified fuel flow monitoring system. Facility operations are monitored by an integrated microprocessor-based control system. Each combustion turbine is equipped with a continuous emissions monitoring system (CEMS) to measure NO_x, carbon monoxide (CO), and diluent oxygen (O_2). Also included is a data acquisition and handling system (DAHS) for data acquisition and analysis. These data systems are used during all facility operations, including startup and shutdown. Ancillary units at the facility include a natural gas-fired heater to heat the natural gas prior to combustion and a diesel-fired emergency fire pump. The facility has an existing Tier I permit for the sources described above.

This PTC will incorporate a 170-megawatt (170-MW) Siemens Westinghouse Model SGT6-5000F (previously named W501F) simple-cycle combustion turbine with generator and a Sivalls, Inc., 3.6 MMBtu/hr natural gas-fired heater used to heat the natural gas prior to combustion in the turbine. The turbine will be used to provide electrical power to meet peak system load requirements according to the facility.

3. FACILTY / 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 NO_x, and CO 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

Idaho Power submitted a permit to construct application to install a new 170 MW combustion turbine and 3.6 MMBtu/hr fuel heater.

This PTC will be issued in accordance to IDAPA 58.01.01.209.05.a. This PTC will be incorporated into the existing Tier I operating permit in accordance with this rule.

4.1 Application Chronology

December 21, 2006	DEQ received PTC application from the facility.
January 19, 2007	PTC application was determined incomplete.
January 31, 2007	DEQ received additional information from the facility.
February 27, 2007	DEQ determined the application complete.

5. PERMIT ANALYSIS

This section describes the regulatory requirements for this PTC revision.

5.1 Equipment Listing

Simple Cycle Natural Gas-Fired Combustion Engine (CT1)

Manufacturer:	Siemens Westinghouse
Model:	SGT6-5000F Combustion Turbine
Rated heat input capacity:	1,820 MMBtu/hr based on LHV
Nominal rating:	170 MW
Fuel type:	Natural gas
Emissions control device:	Dry Low NO_x burners

Fuel Heater (H2)

Manufacturer:	Sivalls
Rated heat input capacity:	3.6 MMBtu/hr
Fuel type:	Natural gas
Emissions control device:	None

5.2 Emissions Inventory

Emissions for this new turbine and fuel heater for this facility were supplied by the facility's consultant. Emissions for the turbine and fuel heater were calculated from the performance guarantee data sheet from the manufacturer, Siemens Power Generation, Inc. , Sivalls, Inc. , and appropriate sections from EPA AP-42 emission factors.

An increase in allowable CO T/yr emissions was requested on March 26, 2007 by the facility. The request was granted based on discussions with DEQ's modeling staff. Table 5.1 gives a summary of the criteria pollutant emissions estimates for this PTC as permitted.

Table 5.1 Criteria Air Pollutant Emissions Summary

Emission Source	PM		PM_{10}		SO_2		NO_x		VOC		CO	
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
CT1 (gas turbine)	10.00	43.80	10.00	43.80	1.10	4.82	61.00	247.00	2.80	12.26	41.00	248.00
H2 (fuel heater)	0.03	0.13	0.03	0.13	0.03	0.11	0.44	1.91	0.05	0.21	0.37	1.60

Table 5.2 gives a summary of toxic air pollutants emissions that were estimated to be emitted above the toxic screening emissions levels. All other toxic air pollutants were estimated be below their respective screening emissions levels.

Table 5.2 Summary of Toxic Air Pollutants

TAP	Emissions Point and Rates (lb/hr[a])	Emissions Point and Rates (lb/hr[a])
	CT1	H2
1,3-Butadiene	7.81E-4	NA[b]
Acetaldehyde	7.27E-2	NA[b]
Benzene	2.18E-2	7.56E-6
Cadmium	NA[b]	3.96E-6
Formaldehyde	1.29	2.70E-4
POM	4.00E-3	4.10E-8

a. Pounds per hour
b. Not available

DEQ reviewed the submitted emissions calculations and discussed the methodologies with the facility's consultant, and found them to be acceptable. The detailed emissions information submitted with the application are included in Appendix B.

5.3 Modeling

Modeling was submitted by the facility's consultant. DEQ conducted verification modeling. A full impact analysis was conducted for NO_2.

Tables 5.3 and 5.4 show the results of the air impact analyses conducted.

Table 5.3. FULL IMPACT ANALYSES

Pollutant	Averaging Period	Modeled Design Concentration ($\mu g/m^3$)[a]	Background Concentration ($\mu g/m^3$)	Total Impact ($\mu g/m^3$)	NAAQS[b] ($\mu g/m^3$)	Percent of NAAQS
Nitrogen Dioxide (NO_2)	Annual	1.13	17	18.13	100	18

a. Maximum modeled concentration in micrograms per cubic meter
b. National Ambient Air Quality Standards

Table 5.4 RESULTS OF TAP ANALYSES

TAP	Averaging Period	Maximum Modeled Concentration ($\mu g/m^3$)[a]	AAC or AACC[b] ($\mu g/m^3$)	Percent of AAC or AACC
Acetaldehyde	Annual	2.9E-4	4.5E-1	0.06
Benzene	Annual	9.0E-5	1.2E-1	0.08
1,3-Butadiene	Annual	<1.0E-5	3.6E-3	<0.3
Cadmium	Annual	1.0E-5	5.6E-4	1.8
Formaldehyde	Annual	5.3E-3	7.7E-2	7
PAH	Annual	2.0E-5	1.4E-2	0.14

a Micrograms per cubic meter
b Acceptable Ambient Concentration or Acceptable Ambient Concentration for a Carcinogen

DEQ concluded that based on the air impact analyses, emissions from the project will not cause or significantly contribute to a violation of any air quality standard. The complete modeling memorandum is included in Appendix C.

During the review of the draft permit, the facility requested CO emission limits for the project be increased from 179. 6 T/yr (181.18 T/yr including the fuel heater) to just under 250 T/yr. According to DEQ's modeling staff, an increase in CO emissions within the requested amount will not cause or significantly contribute to a violation of any air quality standard. An email on the subject is attached in Appendix C.

5.4 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 58.01.01.205[40 CFR 52.21].....Permit Requirements for New Major Facilities or Major Modifications in Attainment or Unclassifiable Areas

Guidance shows that there cannot be a major modification at a minor source, but there can be a project at a minor existing source that, in and of itself, qualifies as a major stationary source and is subject to major NSR review (see page A-24, scenario 2, of the EPA New Source Review Workshop Manual, draft, October 1990). Since the Evander Andrews Complex currently exists as a minor facility, for PSD purposes, and the proposed modification includes federally enforceable permit conditions that will limit the new sources' potential to emit (PTE) to less than the major source thresholds, then this proposed modification is not subject to PSD review. However, since the Evander Andrews Complex PTE after the change will exceed the 250 TPY threshold, the facility will be classified as a major facility upon issuance of the PTC, and any modifications proposed after that time will need to be reviewed to determine if the change is a major modification as defined by 40 CFR 52.21(b)(2) and 52.21(a)(2).

IDAPA 58.01.01.203.03.....Toxic Air Pollutants

No permit to construct shall be granted for a new or modified stationary source unless the applicant shows to the satisfaction of the Department all of the following:….03. Toxic Air Pollutants Using the methods provided in Section 210, the emissions of toxic air pollutants from the stationary source or modification would not injure or unreasonably affect human or animal life or vegetation as required by Section 161. Compliance with all applicable toxic air pollutant carcinogenic increments and toxic air pollutant non-carcinogenic increments will also demonstrate preconstruction compliance with Section 161 with regards to the pollutants listed in Sections 585 and 586."

The emissions of toxic air pollutants that exceeded their respective screening emissions levels were modeled, and the modeled ambient concentrations were less than their respective acceptable ambient concentrations (AACC). Therefore, the facility has demonstrated compliance with IDAPA 58.01.01.203.03.

IDAPA 58.01.01.625.....Visible Emissions

This regulation states that any point of emission shall not have a discharge of any air pollutant for a period aggregating more than three minutes in any 60-minute period of greater than 20% opacity. The emissions points at this facility are subject to this regulation.

IDAPA 58.01.01 675.....Fuel Burning Equipment

This regulation establishes particulate matter emission standards (grain loading standards) for fuel burning equipment. Fuel burning equipment is defined in IDAPA 58.01.01.006.41 as, "*Any furnace, boiler, apparatus, stack and all appurtenances thereto, used in the process of burning fuel for the primary purpose of producing heat or power by indirect heat transfer.*"

This regulation is applicable to H2. The calculated PM concentration of the H2 flue gas is 0.005 gr/dscf @3% O_2. H2 is in compliance with the grain loading standard. Therefore, no specific monitoring requirement is included in the permit as long as H2 is fired by natural gas.

40 CFR 60 Subpart KKKK .....Standards of Performance for Stationary Combustion Turbines

The combustion turbine is subject to 40 CFR 60 Subpart KKKK which was promulgated on July 6, 2006. As a result, it is exempt from 40 CFR 60 Subpart GG.

40 CFR 72 .....Acid Rain Program

The proposed facility will be subject to the Acid Rain Program requirements of Parts 72 through 78. The Acid Rain Permit application requirements of 72.9(a) and the monitoring requirements of 72.9(b) have been applied to the facility. It should be noted that the alternative monitoring requirements given by 40 CFR 75, Subpart E, may be used in lieu of 72.9(b). As part of 72.9(a), the facility must comply with the requirements of 40 CFR Part 72, Subpart C. To implement the monitoring requirements, the permittee must comply with 40 CFR Part 75.

40 CFR 61 .....National Emission Standards For Hazardous Air Pollutants

The facility is not subject to any NESHAP standards.

Non-applicable

40 CFR 63 Subpart YYYY .....National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines

The combustion turbine is not located at major source of HAP emissions. It is not subject to this MACT.

5.5 Permit Conditions

5.5.1 Facility-Wide Conditions

This section of the permit contains conditions that are generally applicable to the facility. The conditions include fugitive dust requirements, odor requirements, visible emissions requirements, and monitoring and recordkeeping requirements for each (for enforceability). The conditions also include requirements to submit permit applications for the Tier I operating permit program and Acid Rain Program as applicable.

5.5.2 Combustion Turbine Conditions (CT1)

5.5.2.1 Permit Conditions 3.1 and 3.2 provide a brief description of the combustion turbine and its NO_X control device.

5.5.2.2 Permit Condition 3.3 is the NO_X emissions limit taken from 40 CFR 60 Subpart KKKK.

The corresponding operating, monitoring, recordkeeping, reporting, the performance test requirements taken from 40 CFR 60 Subpart KKKK are included in Permit Conditions 3.6, 3.9, 3.14, 3.16, 3.17, 3.18, 3.27, and 3.28 to ensure that the permittee meets the NO_X emissions limit.

5.5.2.3 Permit Condition 3.4 is the SO_2 emissions limit taken from 40 CFR 60 Subpart KKKK.

The corresponding operating, monitoring, recordkeeping, reporting, the performance test requirements taken from 40 CFR 60 Subpart KKKK are included in Permit Conditions 3.6, 3.10, 3.11, 3.14, 3.16, 3.19, and 3.29 to ensure that the permittee meets the NO_X emissions limit.

5.5.2.4 Permit Condition 3.5 establishes annual emissions limits for NO_X, and CO in order to keep the project as a PSD synthetic minor.

Permit Condition 3.12 requires the permittee to use CO-CEMS to continuously monitor the CO emissions from the combustion turbine.

Permit Condition 3.13 requires the permittee to develop a protocol to quantify annual NO_X and CO emissions, and to monitor and record NO_X and CO emissions rates. The monitoring data obtained in Permit Conditions 3.9 through 3.12 is required to be used in the quantification of annual emissions in Permit Condition 3.13. The permittee is not allowed to start up the combustion turbine until the protocol is approved by DEQ in accordance with Permit Condition 3.8.

Permit Condition 3.7 limits the turbine fuel type as natural gas exclusively which was the basis for the evaluation given in the application.

5.5.2.5 Permit Condition 3.15 requires all the monitoring data obtained in Permit Condition 3.9 through 3.12 to be kept on site for a minimum of five years and shall be made available to DEQ representatives upon request.

5.5.2.6 Permit Conditions 3.20 and 3.21 requires the submission of performance test protocols and performance test reports to meet IDAPA 58.01.01.157.

5.5.2.7 Permit Condition 3.23 requires the submission of initial certification, recertification, and monitoring plans for NO_X-CEMS as required by 40 CFR 75 Subpart G.

5.5.2.8 Permit Conditions 3.22, and 3.24 through 3.26 requires the submission of the information (e.g. RATAs) of the CEMS.

5.5.3 Fuel Heater (H2)

5.5.3.1 Permit Condition 4.1 provides a brief description of the fuel heater. Permit Condition 4.2 indicates there is no control device installed.

5.5.3.2 Permit Condition 4.3 establishes annual emissions limits for NO_X and CO in order to keep the project as PSD synthetic minor.

Permit Conditions 4.4 and 4.5 are operating requirements ensuring that the emissions limits are met. Permit Condition 4.6 is a monitoring and recordkeeping requirement to ensure that the permittee is in compliance with the operating requirements in Permit Conditions 4.4 and 4.5 consequently, in compliance with the emissions limits.

5.5.3.3 Permit Condition 4.4 is a grain loading standard for the heater. Since the fuel heater is fueled by natural gas, the permittee will meet the grain loading standard.

6. FEE REVIEW

Idaho Power paid the $1,000 application fee required by IDAPA 58.01.01.224 on December 22, 2006. In accordance with IDAPA 58.01.01.225, a PTC processing fee of $7,500 was paid as required for permit modifications to an existing source with an increase in emissions of 100 tons per year or more.

Table 6.1 EMISSIONS INVENTORY

Emissions Inventory			
Pollutant	**Annual Emissions Increase (T/yr)**	**Annual Emissions Reduction (T/yr)**	**Annual Emissions Change (T/yr)**
NO_x	248.91	0	248.91
SO_2	4.93	0	4.93
CO	181.18	0	181.18
PM_{10}	2.43	0	2.43
VOC	12.47	0	12.47
TAPS/HAPS	8.0	0	8.0
Total:	457.91	0	457.91
Fee Due	**$ 7,500.00**		

Idaho Power Company's Evander Andrews Complex 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.

7. PERMIT REVIEW

7.1 Regional Review of Draft Permit

DEQ's Boise Regional Office was provided the draft permit for review on March 21, 2007. No comments for changes to the permit were received.

7.2 Facility Review of Draft Permit

The facility was provided the draft permit for review on March 23, 2007. The facility had two comments which were incorporated.

7.3 Public Comment

An opportunity for public comment period on the PTC application was provided in accordance with IDAPA 58.01.01.209.01.c. During this time, a public comment period was requested. The public comment period was held from March 30, 2007 through April 30, 2007.

RECOMMENDATION

Based on review of application materials and all applicable state and federal rules and regulations, staff recommends that the final PTC No. P-060065 be issued to Idaho Power Company, Evander Andrews Complex for this project.

TD/bf Permit No. P-060065

APPENDIX A

Aerometric Information Retrieval System Information

P-060065

AIRS/AFS[a] FACILITY-WIDE CLASSIFICATION[b] DATA ENTRY FORM

Facility Name: Idaho Power Company, Evander Andrews Complex
Facility Location: Mountain Home
AIRS Number: 039-00025

AIR PROGRAM POLLUTANT	SIP	PSD	NSPS (Part 60)	NESHAP (Part 61)	MACT (Part 63)	SM80	TITLE V	AREA CLASSIFICATION A-Attainment U-Unclassified N- Nonattainment
SO_2	B	SM	B					U
NO_x	A	SM	A				A	U
CO	A	SM					A	A
PM_{10}	A						A	A
PT (Particulate)	A							
VOC	A						A	U
THAP (Total HAPs)	B						B	U
			APPLICABLE SUBPART					
			KKKK					

[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 HAPs only, class "A" is applied to each pollutant which is at or above the 10 T/yr threshold, **or** each pollutant that is below the 10 T/yr threshold, but contributes to a plant total in excess of 25 T/yr of all HAPs.

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).

APPENDIX B

Emissions Information

P-060065

	DEQ AIR QUALITY PROGRAM 1410 N. Hilton Boise, ID 83706 **For assistance: (208) 373-0502**	**PERMIT TO CONSTRUCT APPLICATION**

Company Name:	Idaho Power Company
Facility Name:	Evander Andrews Complex
Facility ID No.:	039-00024
Brief Project Description:	New source construction (CT1 and auxiliary equipment)

SUMMARY OF EMISSIONS INCREASE (PROPOSED PTE - PREVIOUSLY MODELED PTE) - POINT SOURCES

1.	2.	3.											
		PM_{10}		SO_2		NO_x		CO		VOC		Lead	
Emissions units	Stack ID	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Point Source(s)													
CT1	CT1	10.00	2.28	1.10	4.82	61.00	247.00	41.00	179.58	2.80	12.26	na	
H2	H2	0.03	0.14	0.03	0.11	0.44	1.91	0.37	1.60	0.05	0.21		
Total		10.03	2.43	1.13	4.93	61.44	248.91	41.37	181.18	2.85	12.47		

EVANDER ANDREWS COMPLEX PERMIT TO CONSTRUCT
HAP IMPACT ANALYSIS - NATURAL GAS FIRED HEATER

AP42 Table 1.4-3 Emission Factors (lb/MMscf) with corresponding IDEQ ELs								
3-Methylchloranthene	Benzene	POM[1]	Dichlorobenzene	Formaldehyde	Hexane	Naphthalene	Pentane	Toluene
1.80E-06	2.10E-03	1.14E-05	1.20E-03	7.50E-02	1.80E+00	6.10E-04	2.60E+00	1.30E-04

	3-Methylchloranthene	Benzene	POM[1]	Dichlorobenzene[2]	Formaldehyde	Hexane	Naphthalene	Pentane	Toluene
Heater	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)
0.0036 MMscf/hr	6.48E-09	7.56E-06	4.10E-08	4.32E-06	2.70E-04	6.48E-03	2.20E-06	9.36E-03	4.68E-07
IDEQ EL	2.50E-06	8.00E-04	2.00E-06	2.00E+01	5.10E-04	1.20E+01	3.33E+00	1.18E+02	2.50E+01

AP42 Table 1.4-4 Emission Factors (lb/MMscf) with corresponding IDEQ ELs											
Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Manganese	Mercury	Nickel	Selenium	Vanadium	Zinc
2.00E-04	4.40E-03	1.50E-05	1.10E-03	1.40E-03	8.50E-04	3.80E-04	2.60E-04	2.10E-03	2.40E-05	2.30E-03	2.90E-02

	Arsenic	Barium	Beryllium	Cadmium	Chromium[3]	Copper[4]	Manganese[5]	Mercury[6]	Nickel	Selenium	Vanadium[7]	Zinc
Heater	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)
0.0036 MMscf/hr	7.20E-07	1.58E-05	5.40E-08	3.96E-06	5.04E-06	3.06E-06	1.37E-06	9.36E-07	7.56E-06	8.64E-08	8.28E-06	2.09E-08
IDEQ EL	1.50E-06	3.30E-02	2.80E-05	3.70E-06	1.30E-02	1.30E-02	6.70E-02	1.00E-03	2.70E-05	1.30E-02	3.00E-03	6.67E-01

1 - (Polycyclic Organic Matter) For emissions of PAH mixtures, the following PAHs shall be considered together as one TAP, equivalent in potency to benzo(a)pyrene: benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene and indeno(1,2,3-cd)pyrene emission factors.

2 - lowest IDEQ EL assumed (o-Dichlorobenzene)

3 - lowest IDEQ EL assumed (all forms, except Cr+6)

4 - lowest IDEQ EL assumed (fume)

5 - lowest IDEQ EL assumed (fume)

6 - lowest IDEQ EL assumed (Alkyl compounds as Hg)

7 - lowest IDEQ EL assumed (Vanadium as V205)

EVANDER ANDREWS COMPLEX PERMIT TO CONSTRUCT
HAP IMPACT ANALYSIS - COMBUSTION TURBINE

AP42 Table 3.1-3 Emission Factors (lb/MMBtu)

1,3-Butadiene	Acetaldehyde	Acrolein	Benzene	Ethylbenzene	Formaldehyde	Naphthalene	PAH	Propylene Oxide	Toluene	Xylene
4.30E-07	4.00E-05	6.40E-06	1.20E-05	3.20E-05	7.10E-04	1.30E-06	2.20E-06	2.90E-05	1.30E-04	6.40E-05

Scenario	1,3-Butadiene (lb/hr)	Acetaldehyde (lb/hr)	Acrolein (lb/hr)	Benzene (lb/hr)	Ethylbenzene (lb/hr)	Formaldehyde (lb/hr)	Naphthalene (lb/hr)	PAH (lb/hr)	Propylene Oxide (lb/hr)	Toluene (lb/hr)	Xylene (lb/hr)
Case 8 1817 MMBtu (HHV)	7.81E-04	7.27E-02	1.16E-02	2.18E-02	5.81E-02	1.29E+00	2.36E-03	4.00E-03	5.27E-02	2.36E-01	1.16E-01
IDEQ EL	2.40E-05	3.00E-03	1.70E-02	8.00E-04	2.90E+01	5.10E-04	3.33E+00	9.10E-05	3.20E+00	2.50E+01	2.90E+01

Bennett Mountain Power Project

Fuel Heater Data

Operating Data

Operating Hours	8760		
Fuel Heat content (HHV)	1000	Btu/scf	
Fuel Heat content (LHV)	1000	Btu/scf	
Fuel S Content	2	gr/100dscf	2.8571429 lb/MMdscf
Fuel Heater Heat Input	3.6	MMBTU/hr	
Fuel Heater Fuel Input	0.0036	MMscf/hr	
	31,536,000	scf/yr	

Emissions Data

	Emission Factor (lb/MMscf)	Emissions (lb/hr)	(gm/s)	(ton/yr)
NOx (lb/MMscf)		0.4357	0.0549	1.9084
CO (lb/MMscf)		0.3660	0.0462	1.6031
VOC (lb/MMscf)		0.0479	0.0060	0.2098
SOx (as SO2) (lb/MMscf)		0.0261	0.0033	0.1145
PM10 (front and back) (lb/MMscf)		0.0331	0.0042	0.1450

Note: Emission factors (except SO2) from EPA AP-42, Tables 1.4-1 and 1.4-2.

Stack Data

Exhaust Temperature	1000	F	811	K
Exhaust Gas Flow	2369	acfm	67.09	acmm
Exhaust Diameter	1.99	ft	0.61	m
Exhaust Velocity	12.68	ft/s	3.87	m/s
Exhaust Height Above Ground	18.0	ft	5.49	m

fuel-heater(trash).xls, Heater, 1/6/2006, G. Frisbie

SIEMENS

Idaho Power, Evander Andrews

Estimated SGT6-5000F Gas Turbine Performance
Simple Cycle / Dry Low NOx Combustor
SGen6-1000A / 0.90 Power Factor

Based on USAabb option rev 4
11/14/06

SITE CONDITIONS:	CASE 1	CASE 2	CASE 3	CASE 4	CASE 5	CASE 6	CASE 7	CASE 8	CASE 9	CASE 10
FUEL TYPE	Natural Gas	Natural Gas	Natural Gas	Natural Gas	Natural Gas	Natural Gas	Natural Gas	Natural Gas	Natural Gas	Natural Gas
LOAD LEVEL	BASE	BASE	70%	60%	BASE	70%	60%	BASE	70%	60%
NET FUEL HEATING VALUE, Btu/lbm (LHV)	20981	20981	20981	20981	20981	20981	20981	20981	20981	20981
GROSS FUEL HEATING VALUE, Btu/lbm (HHV)	23299	23299	23299	23299	23299	23299	23299	23299	23299	23299
EVAPORATIVE COOLER STATUS/EFFECTIVENESS	85%	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
AMBIENT DRY BULB TEMPERATURE, °F	100.0	100.0	100.0	100.0	50.0	50.0	50.0	0.0	0.0	0.0
AMBIENT WET BULB TEMPERATURE, °F	62.7	62.7	62.7	62.7	43.5	43.5	43.5	0.0	0.0	0.0
AMBIENT RELATIVE HUMIDITY, %	10%	10%	10%	10%	60%	60%	60%	100%	100%	100%
BAROMETRIC PRESSURE, psia	13.117	13.117	13.117	13.117	13.117	13.117	13.117	13.117	13.117	13.117
COMPRESSOR INLET TEMPERATURE, °F	67.6	100.0	100.0	100.0	50.0	50.0	50.0	0.0	0.0	0.0
INLET PRESSURE LOSS, in. H2O (Total)	3.7	3.3	2.2	1.9	3.9	2.5	2.1	4.1	2.6	2.19
EXHAUST PRESSURE LOSS, in. H2O (Total)	7.4	6.5	4.2	3.6	8.0	5.1	4.3	9.1	5.8	4.92
EXHAUST PRESSURE LOSS, in. H2O (Static)	4.5	3.9	2.5	2.2	4.8	3.1	2.6	5.5	3.5	2.98
GAS TURBINE PERFORMANCE:										
GROSS POWER OUTPUT, kW	169727	146443	102107	87310	181202	126497	108230	206768	144444	123629
GROSS HEAT RATE, Btu/kWh (LHV)	9211	9592	10520	11109	9031	9829	10290	8775	9517	9936
GROSS HEAT RATE, Btu/kWh (HHV)	10228	10652	11682	12336	10029	10915	11427	9745	10568	11033
FUEL FLOW, lbm/hr	74511	66949	51197	46228	77995	59261	53092	86480	65520	58545
HEAT INPUT, mmBtu/hr (LHV)	1563	1405	1074	970	1636	1243	1114	1814	1375	1228
HEAT INPUT, mmBtu/hr (HHV)	1736	1560	1193	1077	1817	1381	1237	2015	1527	1364
EXHAUST TEMPERATURE, °F	1090	1116	1116	1116	1072	1072	1072	1041	1041	1041
EXHAUST FLOW, lbm/hr	3464408	3204497	2575642	2386134	3619615	2892171	2657164	3923597	3126370	2863847
EXHAUST FLOW, MACFM	2.59	2.42	1.95	1.80	2.66	2.13	1.95	2.82	2.25	2.06
EXHAUST GAS COMPOSITION (% BY VOLUME):										
OXYGEN	12.40	12.83	13.21	13.41	12.57	12.97	13.16	12.50	12.91	13.10
CARBON DIOXIDE	3.73	3.64	3.47	3.38	3.75	3.57	3.48	3.84	3.66	3.57
WATER	9.18	7.89	7.55	7.37	8.20	7.84	7.67	7.73	7.37	7.19
NITROGEN	73.82	74.76	74.89	74.96	74.61	74.75	74.81	75.04	75.19	75.25
ARGON	0.87	0.88	0.88	0.88	0.87	0.88	0.88	0.88	0.88	0.88
MOLECULAR WEIGHT	28.29	28.42	28.44	28.46	28.40	28.42	28.43	28.46	28.48	28.49
NET EMISSIONS: Based on USEPA test methods										
NOx, ppmvd @ 15% O2	9	9	9	9	9	9	9	9	9	9
NOx, lbm/hr as NO2	58	52	40	36	61	46	42	68	51	46
CO, ppmvd @ 15% O2	10	10	10	10	10	10	10	10	10	10
CO, lbm/hr	39	35	27	24	41	31	28	46	35	31
SO2, lbm/hr	1.1	1.0	0.7	0.7	1.1	0.9	0.8	1.2	0.9	0.8
VOC, ppmvd @ 15% O2 as CH4	1.2	1.2	2.3	10.0	1.2	2.3	10.0	1.2	2.3	10.0
VOC, lbm/hr as CH4	2.7	2.4	3.6	14.0	2.8	4.1	16.1	3.1	4.6	17.7
PARTICULATES, lbm/hr	10	10	10	10	10	10	10	10	10	10

NOTES:

- Performance is based on new and clean condition. All data is estimated and not guaranteed
- Gross power output is at the generator terminals minus excitation losses. It does not include econopac auxiliary load losses
- Estimated GT Performance values are dependent upon receiving test tolerances equal to measurement uncertainty calculated in accordance with ASME PTC 19.1-1998.
- VOC's consist of total hydrocarbons excluding methane and ethane and is expressed in terms of methane
- Exhaust volumetric flow rate is at the exit to the ECONOPAC stack.
- Gas fuel composition is 98% CH4, 0.6% C2H6, 1.4% N2, 0.2 grains of sulfur per 100 SCF.
- Gas fuel must be in compliance with the SWPC Gas Fuel Spec (21T0306 Rev.11).
- Particulates are per US EPA Method 5/202 (front and back half)
- Average temperature of the gas fuel is 60°F.
- IGV schedule may be adjusted during commissioning. Part load performance will be adjusted accordingly
- Please be advised that the information contained in this transmittal has been prepared and is being transmitted per customer request specificall for information purposes only. Such information is not intended to be used for evaluation of plant design and/or performance relative to contractu commitments. Data included in any permit application or Environmental Impact Statement are strictly the customer's responsibility

APPENDIX C

Modeling Memo

P-060065

M E M O R A N D U M

DATE: March 22, 2007

TO: Tracy Drouin, Permit Writer, Air Program

FROM: Kevin Schilling, Stationary Source Modeling Coordinator, Air Program

PROJECT NUMBER: P- 060065

SUBJECT: Modeling Review for the Idaho Power Company Permit to Construct Application for a 170 megawatt natural gas-fired combustion turbine at their Evander Andrews Complex in Mountain Home, Idaho

1.0 SUMMARY

Idaho Power Company (Idaho Power), submitted a Permit to Construct (PTC) application for a 170 megawatt natural gas-fired, simple-cycle combustion turbine at their Evander Andrews Complex in Mountain Home, Idaho. Air quality analyses involving atmospheric dispersion modeling of emissions associated with the proposed modification were submitted to demonstrate that the modification would not cause or significantly contribute to a violation of any ambient air quality standard (IDAPA 58.01.01.203.02). Tetra Tech EM Inc. (Tetra Tech), Idaho Power's consultant, conducted the ambient air quality analyses.

A technical review of the submitted air quality analyses was conducted by DEQ. The submitted modeling analyses: 1) utilized appropriate methods and models; 2) was conducted using reasonably accurate or conservative model parameters and input data; 3) adhered to established DEQ guidelines for new source review dispersion modeling; 4) showed either a) that predicted pollutant concentrations from emissions associated with the proposed facility were below significant contribution levels (SCLs); or b) that predicted pollutant concentrations from emissions associated with the facility, when appropriately combined with background concentrations, were below applicable air quality standards at all receptor locations. Table 1 presents key assumptions and results that should be considered in the development of the permit.

Table 1. KEY ASSUMPTIONS USED IN MODELING ANALYSES

Criteria/Assumption/Result	Explanation/Consideration
Impacts of all pollutants are well below any applicable standards	Permit provisions, beyond typical provisions assuring operations are conducted as proposed, are not necessary to assure compliance with air quality standards.

2.0 BACKGROUND INFORMATION

2.1 Applicable Air Quality Impact Limits and Modeling Requirements

This section identifies applicable ambient air quality limits and analyses used to demonstrate compliance.

2.1.1 Area Classification

The Evander Andrews Complex is located in Mountain Home, Idaho. This area is designated as an attainment or unclassifiable for all criteria pollutants.

2.1.2 Significant and Full Impact Analyses

If estimated maximum pollutant impacts to ambient air from the emissions sources associated with the proposed facility exceed the significant contribution levels (SCLs) of IDAPA 58.01.01.006.90, then a full impact analysis is necessary to demonstrate compliance with IDAPA 58.01.01.203.02. A full impact analysis for attainment area pollutants involves adding ambient impacts from facility-wide emissions to DEQ-approved background concentration values that are appropriate for the criteria pollutant/averaging-time at the facility location and the area of significant impact. The resulting maximum pollutant concentrations in ambient air are then compared to the National Ambient Air Quality Standards (NAAQS) listed in Table 2. Table 2 also lists SCLs and specifies the modeled value that must be used for comparison to the NAAQS.

TABLE 2. APPLICABLE REGULATORY LIMITS

POLLUTANT	Averaging Period	Significant Contribution Levels[a] ($\mu g/m^3$)[b]	Regulatory Limit[c] ($\mu g/m^3$)	Modeled Value Used[d]
PM_{10}[e]	Annual	1.0	50[f]	Maximum 1st highest[g]
	24-hour	5.0	150[h]	Maximum 6th highest[i]
Carbon monoxide (CO)	8-hour	500	10,000[j]	Maximum 2nd highest[g]
	1-hour	2,000	40,000[j]	Maximum 2nd highest[g]
Sulfur Dioxide (SO_2)	Annual	1.0	80[f]	Maximum 1st highest[g]
	24-hour	5	365[j]	Maximum 2nd highest[g]
	3-hour	25	1,300[j]	Maximum 2nd highest[g]
Nitrogen Dioxide (NO_2)	Annual	1.0	100[f]	Maximum 1st highest[g]
Lead (Pb)	Quarterly	NA	1.5[h]	Maximum 1st highest[g]

[a]IDAPA 58.01.01.006.90
[b]Micrograms per cubic meter
[c]IDAPA 58.01.01.577 for criteria pollutants
[d]The maximum 1st highest modeled value is always used for significant impact analyses
[e]Particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers
[f]Never expected to be exceeded for any calendar year
[g]Concentration at any modeled receptor
[h]Never expected to be exceeded more than once in any calendar year
[i]Concentration at any modeled receptor when using five years of meteorological data
[j]Not to be exceeded more than once per year

2.1.3 Toxic Air Pollutant Analyses

Toxic Air Pollutant (TAP) requirements for PTCs are specified in IDAPA 58.01.01.210. If the emissions increase associated with a new source or modification exceeds screening emission levels (ELs) of IDAPA 58.01.01.585 or 586, then the ambient impact of the emissions increase must be estimated. If ambient impacts are less than applicable Acceptable Ambient Concentrations (AACs) for non-carcinogens of IDAPA 58.01.01.585 and Acceptable Ambient Concentrations for Carcinogens (AACCs) of IDAPA 58.01.01.586, then compliance with TAP requirements has been demonstrated.

2.2 Background Concentrations

Background concentrations were revised for all areas of Idaho by DEQ in March 2003[1]. Background concentrations in areas where no monitoring data are available were based on monitoring data from areas with similar population density, meteorology, and emissions sources. Default small town/suburban background concentrations were used for all criteria pollutants. Table 3 lists applicable background concentrations.

1 Hardy, Rick and Schilling, Kevin. *Background Concentrations for Use in New Source Review Dispersion Modeling*. Memorandum to Mary Anderson, March 14, 2003.

Table 3. BACKGROUND CONCENTRATIONS		
POLLUTANT	**Averaging Period**	**Background Concentration (μg/m^3)[a]**
PM_{10}[b]	24-hour	81
	Annual	27
Carbon monoxide (CO)	1-hour	10,200
	8-hour	3,400
Sulfur dioxide (SO_2)	3-hour	42
	24-hour	26
	Annual	8
Nitrogen dioxide (NO_2)	Annual	17
Lead (Pb)	Quarterly	0.08

a. Micrograms per cubic meter

b. Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers

3.0 MODELING IMPACT ASSESSMENT

3.1 Modeling Methodology

Table 4 lists the modeling parameters used in DEQ's analyses.

Table 4. REFINED MODELING PARAMETERS		
Parameter	**Description/Values**	**Documentation/Addition Description**
Model	AERMOD	AERMOD with the PRIME downwash algorithm, version 04300
Meteorological data	1988 - 1992	Boise, Idaho surface data Boise, Idaho upper air data
Terrain	Considered	Receptor, building, and emissions source elevations were determined using Digital Elevation Model (DEM) files
Building downwash	Considered	The building profile input program (BPIP) was used
Receptor Grid	Grid 1	50-meter spacing along the property boundary out to 500 meters
	Grid 2	100-meter spacing out to 2,000 meters
	Grid 3	250-meter spacing out to 7,000 meters
	Grid 4	500-meter spacing out to 10,000 meters
	Grid 5	1000-meter spacing out to 12,000 meters

3.1.1 Modeling protocol and Methodology

A modeling protocol was not submitted to DEQ prior to the application. The initial application was incomplete and Tetra Tech consulted with DEQ prior to resubmittal. Modeling was generally conducted using methods and data as discussed prior to resubmittal and those described in the *State of Idaho Air Quality Modeling Guideline*.

3.1.2 Model Selection

AERMOD with the PRIME downwash algorithm was used for the modeling analyses. The PRIME downwash algorithm was necessary because of the close proximity of buildings to ambient air receptors.

3.1.3 Meteorological Data

Boise, Idaho, surface and upper air meteorological data were used for the AERMOD analyses. DEQ dispersion modeling staff preprocessed the data with AERMET and provided AERMOD-ready files to Tetra Tech.

3.1.4 Terrain Effects

Terrain effects on dispersion were considered in the analyses. Receptor elevations were obtained by Tetra Tech using Digital Elevation Model (DEM) 7.5-minute files.

3.1.5 Facility Layout

The facility layout used in the modeling analyses, including the ambient air boundary, buildings, and emissions units, were checked against the proposed layout provided in the application. The layout used in the model was sufficiently representative of the proposed site layout.

3.1.6 Building Downwash

Downwash effects potentially caused by structures at the facility were accounted for in the dispersion modeling analyses. The Building Profile Input Program (BPIP) for the PRIME downwash algorithm was used to calculate direction-specific building dimensions and Good Engineering Practice (GEP) stack height information from building dimensions/configurations and emissions release parameters used for the AERMOD analyses.

3.1.7 Ambient Air Boundary

Ambient air was considered as all areas outside of the property boundary fence.

3.1.8 Receptor Network

The receptor grid met the minimum recommendations specified in the *State of Idaho Air Quality Modeling Guideline*. DEQ determined the receptor grid used was adequate to reasonably resolve maximum modeled concentrations.

3.2 Emission Rates

Emissions rates used in the modeling analyses were equal to or somewhat greater than those presented in other sections of the permit application or the DEQ Statement of Basis.

3.2.1 Criteria Pollutant Emissions Rates

Table 5 provides criteria pollutant emissions rates used in the modeling analyses for both long-term and short-term averaging periods.

Table 5. CRITERIA POLLUTANT EMISSIONS RATES USED FOR AIR IMPACT MODELING

Emissions Point	Description	Emissions Rates[a] (lb/hr)			
		PM_{10}[b]	SO_2[c]	CO[d]	NOx[e]
New Sources					
CT1	Combustion Turbine 1	10.0	1.10	41.0	56.4
H2	Natural Gas Heater Unit 2	0.032	0.032	0.373	0.437
Existing Sources					
CT2	Combustion Turbine 2	Not Calc.	Not Calc.	Not Calc.	28.3
CT3	Combustion Turbine 3	Not Calc.	Not Calc.	Not Calc.	28.3
H1	Natural Gas Heater Unit 1	Not Calc.	Not Calc.	Not Calc.	0.19
FP1	Emergency Fire Pump	Not Calc.	Not Calc.	Not Calc.	0.040

a. Long term rates assume 8760 hours/year of operation
b. Particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers
c. Sulfur dioxide
d. Carbon monoxide
e. Oxides of nitrogen
f. Not calculated because a full impact analysis was not needed for the pollutant

3.2.2 TAP Emissions Rates

Table 6 lists applicable TAP emissions associated with the proposed facility that were in excess of the screening emissions level (EL). Emissions of all other TAPs were below applicable ELs and modeling was not required.

Table 6. TAPS EMISSIONS RATES USED FOR AIR IMPACT MODELING		
TAP	**Emissions Point and Rates (lb/hr[a])**	
	CT1	**H2**
1,3-Butadiene	7.81E-4	NA[b]
Acetaldehyde	7.27E-2	NA[b]
Benzene	2.18E-2	7.56E-6
Cadmium	NA[b]	3.96E-6
Formaldehyde	1.29	2.70E-4
POM	4.00E-3	4.10E-8

a. Pounds per hour
b. Not available

3.3 Emission Release Parameters

Table 7 provides emissions release parameters for the analyses, including stack height, stack diameter, exhaust temperature, and exhaust velocity. The application indicated that stack parameters used in the modeling analyses represented worst-case dispersion conditions of lowest flow and exit gas temperature. Although these conditions are not operationally possible, their use results in conservative modeled impacts without the need to conduct multiple runs for differing operational scenarios.

Table 7. EMISSIONS AND STACK PARAMETERS					
Release Point /Location	*Source Type*	*Stack Height (m)[a]*	*Modeled Diameter (m)*	*Stack Gas Temp. (K)[b]*	*Stack Gas Flow Velocity (m/sec)[c]*
CT1	point	22.9	8.9	833.7	13.7
H2	point	5.5	0.61	810.9	3.9
CT2	point	22.9	4.6	802.6	23.3
CT3	point	22.9	4.6	802.6	23.3
H1	point	7.6	0.23	783.2	20.0
FP1	point	4.6	0.13	839.3	47.6

a. Meters
b. Kelvin
c. Meters per second

3.4 Results for Significant and Full Impact Analyses

Results significant impact analyses are shown in Table 8. A full impact analysis was conducted for NO_2 since results were essentially equal to the Significant Impact Level.

Table 8. SIGNIFICANT IMPACT ANALYSES				
Pollutant	**Averaging Period**	**Maximum Modeled Concentration (μg/m^3)[a]**	**Significant Impact Level (μg/m^3)**	**Full Impact Analysis Required**
PM_{10}[b]	24-hour	0.516	5.0	No
	Annual	0.089	1.0	No
Carbon monoxide (CO)	1-hour	33.45	2,000	No
	8-hour	11.88	500	No
Sulfur dioxide (SO_2)	3-hour	1.623	25	No
	24-hour	0.461	5	No
	Annual	0.086	1	No
Nitrogen dioxide[c] (NO_2)	Annual	0.949	1.0	Yes

a. Micrograms per cubic meter
b. Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
c. A NOx to NO_2 conversion factor of 0.75 for combustion sources was applied to the result

Table 9 provides a summary of the full impact analyses.

Table 9. FULL IMPACT ANALYSES						
Pollutant	**Averaging Period**	**Modeled Design Concentration ($\mu g/m^3$)[a]**	**Background Concentration ($\mu g/m^3$)**	**Total Impact ($\mu g/m^3$)**	**NAAQS[b] ($\mu g/m^3$)**	**Percent of NAAQS**
Nitrogen Dioxide (NO_2)	Annual	1.13	17	18.13	100	18

a. Maximum modeled concentration in micrograms per cubic meter
b. National Ambient Air Quality Standards

3.5 Results for TAPs Analyses

Compliance with TAP increments were demonstrated by modeling TAP emissions increases (those TAPs with emissions exceeding the ELs) resulting from operation of the facility. Table 10 summarizes the ambient TAP analyses.

Table 10. RESULTS OF TAP ANALYSES				
TAP	**Averaging Period**	**Maximum Modeled Concentration ($\mu g/m^3$)[a]**	**AAC or AACC[b] ($\mu g/m^3$)**	**Percent of AAC or AACC**
Acetaldehyde	Annual	2.9E-4	4.5E-1	0.06
Benzene	Annual	9.0E-5	1.2E-1	0.08
1,3-Butadiene	Annual	<1.0E-5	3.6E-3	<0.3
Cadmium	Annual	1.0E-5	5.6E-4	1.8
Formaldehyde	Annual	5.3E-3	7.7E-2	7
PAH	Annual	2.0E-5	1.4E-2	0.14

a Micrograms per cubic meter
b Acceptable Ambient Concentration or Acceptable Ambient Concentration for a Carcinogen

4.0 CONCLUSIONS

The ambient air impact analyses demonstrated to DEQ's satisfaction that emissions from the facility will not cause or significantly contribute to a violation of any air quality standard.

From: Kevin Schilling

Sent: Monday, March 26, 2007 4:53 PM

To: Tracy Drouin

Subject: Idaho Power Evander Complex

Tracy,

The applicant originally modeled CO emissions equal to about 180 ton/yr and used this same estimated emission value in the application. As I understand it from our conversations, they are now (after facility review of the permit) asking for a CO limit of nearly 249 ton/yr. Their modeled CO impacts for the previous CO emissions are 33 ug/m3 for the 1-hour and 12 ug/m3 for the 8-hr, well below the significant contribution levels of 2,000 ug/m3 and 500 ub/m3, respectively.

Revised modeling analyses for the increase in CO emissions are not necessary to demonstrate compliance with the CO NAAQS. Because nearly all of the CO emissions are from the combustion turbine, and ambient impacts are directly proportional to emissions, a doubling of CO emissions would result in impacts still well below the significant contribution levels.

Please keep a copy of this email with the Statement of Basis as documentation that DEQ considers the existing analyses as an adequate demonstration that the proposed facility, with the increased CO emissions, will not cause or significantly contribute to an exceedance of the CO NAAQS.

Kevin Schilling
Stationary Source Air Modeling Coordinator
Idaho Department of Environmental Quality
208 373-0112