State of Utah

Department of
Environmental Quality

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DAQE-AN0327010-04*

October 15, 2004*

George W. Cross
Intermountain Power Service Corporation
850 West Brush Wellman Road
Delta, Utah 84624-9522

Dear Mr. Cross:

Re: Approval Order: PSD Major Modification to Add New Unit 3 at Intermountain Power Generating Station, Millard County, Utah CDS-A, ATT, NSPS, HAPs, MACT, Title IV, Title V Major. Project Code: N0327-010

The attached document is the Approval Order (AO) for the above-referenced project.

Future correspondence on this Approval Order should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. Please direct any technical questions you may have on this project to Ms. Milka M. Radulovic. She may be reached at (801) 536-4232.

Sincerely,

Richard W. Sprott, Executive Secretary
Utah Air Quality Board

RWS: MR:jc

cc: Central Utah Public Health Department
Mike Owens, EPA Region VIII

*On November 12, 2004, IPSC petitioned the Utah Air Quality Board for review of Condition 24 in the Approval Order DAQE AN0327-04 (AO) dated October 15, 2004, that was issued to IPSC to add new Unit 3. Settlement negotiations took place between UDAQ and IPSC, resulting in a Joint Stipulation. The Approval Order incorporates the terms of the Joint Stipulation, which was approved by Order of the Air Quality Board on September 7, 2005.

# STATE OF UTAH

# Department of Environmental Quality

# Division of Air Quality

# APPROVAL ORDER: PSD MAJOR MODIFICATION TO ADD NEW UNIT 3 AT INTERMOUNTAIN POWER GENERATING STATION


**Prepared By: Milka M. Radulovic, Engineer**
**(801) 536-4232**
**Email: milkar@utah.gov**


**APPROVAL ORDER NUMBER**

**DAQE-AN0327010-04**

**Date: October 15, 2004**

Intermountain Power Service Corporation
**Source Contact**
**George Cross**
**(435) 864-4414**

**Richard W. Sprott**
**Executive Secretary**
**Utah Air Quality Board**

*Abstract*

***On November 12, 2004, IPSC petitioned the Utah Air Quality Board for review of Condition 24 in the Approval Order DAQE AN0327-04 (AO) dated October 15, 2004, that was issued to IPSC to add new Unit 3. Settlement negotiations took place between UDAQ and IPSC, resulting in a Joint Stipulation. The Approval Order incorporates the terms of the Joint Stipulation, which was approved by Order of the Air Quality Board on September 7, 2005.***

***Intermountain Power Service Corporation (IPSC) currently operates the Intermountain Power Plant (IPP) located near the town of Delta, Utah. The existing plant has two drum-type, pulverized coal (PC)-fired boilers that provide steam to two power-generating units, designated as Unit 1 and Unit 2, each with nominal gross capacity of 950 MW. The Intermountain Power Service Corporation (IPSC) submitted a Notice of Intent to expand the IPP facility by adding one additional base load pulverized coal fired electricity generating Unit 3, designed at nominal 950-gross MW (900-net MW) with a dry bottom, tangentially fired or wall-fired boiler and associated equipment. The Unit 3 boiler will be equipped with wet flue gas desulphurization (WFGD), selective catalytic reduction (SCR), and baghouses for control of the various emissions.***

***This project is a major modification for the Prevention of Significant Deterioration (PSD) regulations. On site meteorological monitoring, air dispersion modeling, air quality impacts analysis including visibility and PSD class I and II impacts analysis, non-attainment boundary impact analysis, and a complete top-down Best Available Control Technology (BACT) review were completed and submitted by the IPSC as a part of their Notice of Intent (NOI). Also, an application for case-by-case maximum achievable control technology (MACT) determination for hazardous air pollutants (HAPs) was provided as a part of the NOI. Unit 3 is also subject to New Source Performance Standards under 40 Code of Federal Regulations (CFR) 60, Subparts A, Da and Y. Title IV and Title V of the 1990 Clean Air Act apply to this modification and the Title V permit shall be amended prior to the operation of the Unit 3. Unit 3 boiler will be classified Group1, Phase II under the Acid Rain Program. The increment analysis indicated that the amount of*** $PM_{10}$ ***24-hour increment consumed by the proposed project would be less than 50% of the standard; therefore, approval under Utah Administrative Code R307-401-6 (3) from the Utah Air Quality Board was not required. The IPP will meet all primary and secondary National Ambient Air Quality Standards (NAAQS). The IPP will also meet Class I increments in the National Parks in southern Utah and Class II PSD increments in the vicinity of the plant. IPP Unit 3 will have no adverse effect on air quality related values (including visibility) on any Class I areas.***

***The IPP is located in Millard County, an attainment area for all criteria pollutants.***

***Estimated potential to emit totals from Unit 3, in tons per year, are as follows:*** $PM_{10}$ ***(filterable) = 496.5,*** $NO_x$ ***= 2,775,*** $SO_2$ ***= 3,567.5, CO = 5,946, VOC = 107, HAPs = 199***

The project has been evaluated and found to be consistent with the requirements of the Utah Administrative Code Rule 307 (UAC R307). A public comment period was held in accordance with UAC R307-401-4 and comments were received. The comments were evaluated and the Approval Order was modified to incorporate those comments. This air quality Approval Order (AO) authorizes the project with the following conditions, and failure to comply with any of the conditions may constitute a violation of this order.

**General Conditions:**

1. This Approval Order (AO) applies to the following company:

| Site Location | Corporate Office Location |
|---|---|
| Intermountain Power Service Corporation | Intermountain Power Service Corporation |
| 850 West Brush Wellman Road | 850 W. Brush Wellman Road |
| Delta, UT 84624-9522 | Delta, UT 84624 |

Phone Number: (435) 864-4414
Fax Number: (435) 864-6670

The equipment listed in this AO shall be operated at the following location:

850 West Brush Wellman Road, Delta, Millard County, Utah

Universal Transverse Mercator (UTM) Coordinate System: datum NAD27
4,374.4 kilometers Northing, 364.2 kilometers Easting, Zone 12

2. All definitions, terms, abbreviations, and references used in this AO conform to those used in the Utah Administrative Code (UAC) Rule 307 (R307) and Title 40 of the Code of Federal Regulations (40 CFR). Unless noted otherwise, references cited in these AO conditions refer to those rules.

3. The limits set forth in this AO shall not be exceeded without prior approval in accordance with R307-401.

4. Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved in accordance with R307-401-1.

5. All records referenced in this AO or in applicable NSPS and/or NESHAP and/or MACT standards, which are required to be kept by the owner/operator, shall be made available to the Executive Secretary or Executive Secretary's representative upon request, and the records shall include the five-year period prior to the date of the request. Records shall be kept for the following minimum periods:

| | | |
|---|---|---|
| A. | Used oil consumption | Five years |
| B. | Emission inventories | Five years from the due date of each statement or until the next inventory is due, whichever is longer. |
| C. | All other records | Five years |

6. Intermountain Power Service Corporation (IPSC) shall install and operate the nominal 950 gross-MW power generating Unit 3 with dry-bottom pulverized coal fired boiler and modified equipment associated with Unit 3, as defined by this AO, in accordance with the terms and conditions of this AO, which was written pursuant to IPSC's Notice of Intent submitted to the Division of Air Quality (DAQ) on December 16, 2002 and significant additional information provided throughout the process.

7. The approved installations shall consist of the following equipment or equivalent*:

A. Unit 3 Dry-bottom Pulverized Coal Fired Boiler for base load operation with Overfire Air Ports System

| | |
|---|---|
| Maximum Heat Input Rate: | $9050 \times 10^6$ Btu/hr |
| Type of Burner: | Ultra Low $NO_x$ Burners or equivalent |

B. Unit 3 Main Boiler Stack

| | |
|---|---|
| Stack Height: | At least 712 feet, as measured from ground level at the base of the stack. |

C. Unit 3 Main Boiler Control Equipment:

C.1 Boiler Stack Fabric Filter Baghouse

C.2 Wet Limestone Flue Gas Desulfurization System (WFGD) built in redundancy

C.3 Selective Catalytic Reduction System with ammonia injection

D. Two Unit 3 Cooling Towers, 3A and 3B, equipped with mechanical Mist Eliminators rated at 0.0005 percent circulating water drift loss.

E. Unit 3 Coal Handling:

E.1 Modification of existing conveyors: higher capacity motors on Belts 7 and 8, Belts 9A/9B, 15A/15B expanded to 48”wide;

E.2 New Unit 3 36”wide Conveyors-16A/16B, 17A/17/B, en mass chain totally enclosed conveyors 301A/B, 302A/B, 303, 304, 305, and 306.

E.3 New Coal Transfer Building #5 with Dust Collector EP-127.

E.4 New Coal East Storage Silos 301, 302, 303, 304, and Coal East Storage Silo Bay Dust Collector EP-128.

E.5 New Coal West Storage Silos 305, 306, 307, 308 and Coal West Storage Silo Bay Dust Collector EP-129.

F Unit 3 Fly Ash Handling Equipment: To convey Fly Ash from the fabric filter to the storage silo:

F.1 Fly Ash Storage Silo 1C with Sealed Loading Spout Vent Dust Collector EP-171

F.2 Fly Ash Storage Silo 1C with Vent Dust Collector EP-172

G. Unit 3 Bottom Ash Handling System to convey bottom ash from boiler to storage area.

H. Unit 3 Limestone Handling System for WFGD system

I. Unit 3 WFGD Sludge Handling System

J. Existing Auxiliary Boiler Modification:
Installation of an extension on each boiler stack so that each stack height is at least 72 feet, as measured from the ground level at the base of the stack.

K. Unit 3 Water Treatment Plant, Steam System, Turbine generator, and Air heaters**

* Equivalency shall be determined by the Executive Secretary.

** This equipment is listed for informational purposes only. There are no emissions from this equipment.

8. Intermountain Power Service Corporation shall notify the Executive Secretary in writing when the installation of the equipment listed in Condition #7 has been completed and is operational, as an initial compliance inspection is required. To insure proper credit when notifying the Executive Secretary, send your correspondence to the Executive Secretary, attn: Compliance Section.

If construction and/or installation has not been completed within eighteen months from the date of this AO, the Executive Secretary shall be notified in writing on the status of the construction and/or installation. At that time, the Executive Secretary shall require documentation of the continuous construction and/or installation of the operation and may revoke the AO in accordance with R307-401-11.

# Limitations and Tests Procedures

9. Emissions to the atmosphere from the indicated emission point(s) shall not exceed the following rates and concentrations:

| Source: Unit 3 Main Boiler Stack, BACT/MACT | | |
|---|---|---|
| Pollutant | Emission Rate (lb/MMBtu) | Averaging Period |
| $SO_2$ | 0.10 | 24-hour block average |
| $SO_2$ | 0.09 | 30-day rolling average |
| $NO_x$ | 0.07 | 30-day rolling average |
| $PM_{10}$ (filterable) | 0.012 | 3-test run average |
| PM (filterable) | 0.013 | 3-test run average |
| CO | 0.15 | 30-day rolling average |
| VOC | 0.0027 | 3- test run average |
| $H_2SO_4$ | 0.0044 | 24-hour block average |
| Fluorides/HF | 0.0005 | 3- test run average |
| Lead | 0.00002 | 3- test run average |
| Hg- bituminous coal* | $6 \times 10^{-6}$ lb/ MWhr | 12-month rolling average |
| Hg- subbituminous coal* | $20 \times 10^{-6}$ lb/ MWhr | 12-month rolling average |

| Source: Unit 3 Main Boiler Stack, Air Quality Modeling | | |
|---|---|---|
| Pollutant | Emission Rate (lb/hr) | Averaging Period |
| $SO_2$ | 1,357.5 | 3-hour block average |
| $NO_x$ | 633.5*** | 24-hour block average |
| $PM_{10}$ (filterable+condensable) | 221*** | 24-hour block average** |
| CO | 3,000 | 8-hour block average |
| HCL | 38.13 lb/hr | 3-test run average |

*If a blend of bituminous and subbituminous coals is used, the Hg emission limitation for the blend will be determined by 40 CFR 63.9990(a)(5) (Proposed Rules, Federal Register, Vol. 69, No. 20, January 30, 2004, pages 4720-4721).
**Based on a 24-hour test run or any method approved by the Executive Secretary, which will provide 24-hour data.
*** During periods of startup and shutdown Condition 13 and Condition 24 shall apply.

24-hour block means the period of time between 12:01a.m. and 12:00 midnight.
8-hour block average means eight consecutive hours.

10. Stack testing to show compliance with the emission limitations stated in the above condition shall be performed as specified below:

A.

| Emissions Point | Pollutant | Testing Status | Test Frequency |
|---|---|---|---|
| Unit 3 Main Boiler Stack | $PM_{10}$ (f)/$PM_{10}$ (f+c) | Initial | Annual |
| | PM (f) | Initial | Annual** |
| | $SO_2$ | Initial | CEM |
| | $NO_x$ | Initial | CEM |
| | CO | Initial | CEM* |
| | $H_2SO_4$ | Initial | Annual |
| | VOC | Initial | Annual |
| | Fluorides/HF | Initial | 60-months |
| | Lead | Initial | 60-months |
| | HCl | Initial | 60-months |
| | Hg | Initial | Hg CEM*** |

f-filterable; c-condensible
*or may use CEM equivalent, such as parametric monitoring that may be approved by the Executive Secretary
**or parametric monitoring that may be approved by the Executive Secretary
*** 40 CFR 60, Appendix B, Performance Specification 12a (CEM) (Proposed Rules, Federal Register, Vol. 69, No. 20, January 30, 2004, page 4744) or 40 CFR 63, Appendix B, Method 324 (Sorbent Trap Sampling) (Proposed Rules, Federal Register, Vol. 69, No. 20, January 30, 2004, page 4736) or other testing methods that may be approved.

B. Testing Status (To be applied to the source listed above)

Initial: Initial compliance testing is required. The initial test date shall be performed as soon as possible and in no case later than 180 days after the start up of a new emission source.

Annual: Test at least every year. The Executive Secretary may require testing at any time.

60-months: Test at least every five years. The Executive Secretary may require testing at any time.

CEM: After the initial compliance test, compliance shall be demonstrated through use of a Continuous Emissions Monitoring System (CEMs) as outlined in Condition below. The Executive Secretary may require testing at any time.

C. Notification

The Executive Secretary shall be notified at least 30 days prior to conducting any required emission testing. A source test protocol shall be submitted to DAQ when the testing notification is submitted to the Executive Secretary.

The source test protocol shall be approved by the Executive Secretary prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Executive Secretary.

D. Sample Location

The emission point shall be designed to conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other methods as approved by the Executive Secretary. An Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

E. Volumetric Flow Rate

40 CFR 60, Appendix A, Method 2 or other approved methods.

F. $PM/PM_{10}$

For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201, 201A, or other approved methods. The back half condensibles shall also be tested using the method 202 or other approved methods. All particulate captured shall be considered $PM_{10}$.

For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists (or for PM determination), then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5A, 5B, or 5D, or as appropriate, or other approved methods. The back half condensibles shall also be tested using the Method 202 or other approved methods. The portion of the front half of the catch considered $PM_{10}$ shall be based on information in Appendix B of the fifth edition of the EPA document, AP-42, or other data acceptable to the Executive Secretary.

The back half condensibles shall not be used for compliance demonstration for PM (filterable) limit but shall be used for inventory purposes.

For determination of compliance with $PM_{10}$ limit, both the front and backhalf catches shall be used.

G. Sulfur Dioxide ($SO_2$)

40 CFR 60, Appendix A, Method 6, 6A, 6B, 6C or other approved methods

H. Nitrogen Oxides ($NO_x$)

40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D, 7E or other approved methods

I. Sulfuric Acid Mist ($H_2SO_4$)

40 CFR 60, Appendix A, Method 8, 8A or other approved methods

J. Carbon Monoxide (CO)

40 CFR 60, Appendix A, Method 10, or other approved methods.

K. Volatile Organic Compounds (VOCs)

40 CFR 60, Appendix A, Method 25 or 25A or other approved methods.

L. Hydrogen chloride (HCl)

40 CFR 60, Appendix A, Method 26 or 26A or other approved methods.

M. Fluorides/Hydrogen fluoride (HF-hydrofluoric acid)

40 CFR 60, Appendix A, Method 26 or 26A or other approved methods.

N. Lead

40 CFR 60, Appendix A, Method 12 or other approved methods.

O. Mercury

ASTM Method D6784-02 or 40 CFR 60, Appendix A, Method 29 or other approved methods.

P. Calculations for Testing Results

To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary, to give the results in the specified units of the emission limitation.

Q. New Source Operation

For a new source/emission point, the production rate during all compliance testing shall be no less than 90% of the production rate listed in this AO. If the maximum AO allowable production rate has not been achieved at the time of the test, the following procedure shall be followed:

1. Testing shall be at no less than 90% of the production rate achieved to date.

2. If the test is passed, the new maximum allowable production rate shall be 110% of the tested achieved rate, but not more than the maximum allowable production rate. This new allowable maximum production rate shall remain in effect until successfully tested at a higher rate.

3. The owner/operator shall request a higher production rate when necessary. Testing at no less than 90% of the higher rate shall be conducted. A new maximum production rate (110% of the new rate) will then be allowed if the test is successful. This process may be repeated until the maximum AO production rate is achieved.

R. Existing Source Operation

For an existing source/emission point, the production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years

11. Differential pressure range at the indicated points shall be within the following values

Unit 3 Dust Collectors

| Source | Differential pressure range across the dust collector (Inches of water gage) |
|---|---|
| Fly Ash Storage Silo 1C Loading Spout Vent (EP-171) | 0.5 to 12* |
| Fly Ash Storage Silo 1D Vent (EP-172) | 0.5 to 12* |
| Coal Transfers Building #5 Vent (EP-127) | 0.5 to 12* |
| Coal East Storage Silo Bay (EP-128) | 0.5 to 12* |
| Coal West Storage Silo Bay (EP-129) | 0.5 to 12* |

*If differential pressure is less than 2 inches or greater than 10 inches, work orders will be written to investigate. Dust collector may run in the 0.5 to 2 or 10 to 12 range if reason is known. Recording of the reading is required on a monthly basis. The instrument shall be calibrated against a primary standard annually. Preventive maintenance shall be done quarterly on each baghouse.

12. Visible emissions from the emission points covered under this AO shall not exceed the following values:

A. All baghouses (including the Unit 3 main boiler stack) - 10% opacity. During periods of startup and shutdown Condition 13 and Condition 24 shall apply.

B. All other points - 20% opacity

Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9. Visible emissions from intermittent sources shall use proposed Method 203 A, B, and C, as applicable. For sources that are subject to NSPS, opacity shall be determined by conducting observations in accordance with 40 CFR 60.11(b) and 40 CFR 60, Appendix A, Method 9.

13. IPSC shall develop, implement, and maintain a written startup and shutdown work practice plan (Plan) that describes, in detail, procedures for operating and maintaining the Unit 3 main boiler, including associated air pollution control and monitoring equipment, during periods of startup and shutdown. The Plan shall be submitted to the Executive Secretary at least 180 days prior to the initial startup of the Unit 3 main boiler.

A. For $NO_X$, startup begins with introduction of fuel into the boiler at ambient indoor temperature and ends when the flue gas exiting the SCR is above 600 degrees F. Shutdown begins when the SCR is below 600 degrees F and ends when the fuel is turned off.
B. For $PM_{10}$, startup begins with introduction of fuel into the boiler at ambient indoor temperature and ends when the outlet temperature of the main boiler baghouse is above 210 degrees F and less than 10 percent of the boiler heat input is furnished by fuel oil. Shutdown begins when the baghouse is below 210 degrees F and more than 10 percent of the boiler heat input is furnished by fuel oil and ends when the fuel is turned off.
C. For opacity, startup and shutdown are defined the same as for $PM_{10}$.
D. Plan shall contain steps to minimize, to the maximum extent practicable, the frequency and duration of operation in startup or shutdown mode. This shall include, but not necessarily be limited to, careful and prudent design, planning, operation, and maintenance so as to avoid unnecessary, preventable, or unreasonably frequent or lengthy startups and shutdowns. Bypass of associated air pollution control equipment shall only be used to prevent loss of life, personal injury, or severe property damage.
E. IPSC shall keep records which demonstrate that IPSC complied with the general duty to minimize emissions during periods of startup and shutdown, as set forth in Condition 24. These records shall include the time and date of occurrence and duration of each startup and shutdown as well as any other pertinent information.
F. IPSC may periodically revise the startup and shutdown plan for the affected source as necessary to satisfy the requirements of this Condition or to reflect changes in equipment or procedures at the affected source. Each such revision to the startup and shutdown plan must be submitted to the Executive Secretary.

14. The following Unit 3 boiler heat rate and consumption limits shall not be exceeded:

A. 9050 million British Thermal Units (MMBtu) per hour full load heat input rate for Unit 3 boiler, using Higher Heating Value HHV of the fuel.

B. 3,541,248 tons of coal burned per rolling 12-month period

Records of consumption/heat rate input shall be kept for all periods when the plant is in operation. The records of consumption/production shall be kept on a daily basis.

15. Unit 1 &2 emergency generator located at (source ID102) shall be tested for maintenance only during the periods between 6:00AM and 6:00 PM. Records of the time, date, and duration of emergency generator testing shall be determined by supervisor monitoring and maintaining of an operations log.

**Roads and Fugitive Dust**

16. The facility shall abide by all applicable requirements of R307-205 for Fugitive Emission and Fugitive Dust sources.

17. IPSC shall abide by a fugitive dust control plan acceptable to the Executive Secretary for the control of all dust sources associated with the addition of Unit 3 at the Intermountain Power Generation site. IPSC shall submit a fugitive dust control plan to the Executive Secretary, Attention: Compliance Section, for approval within 90 days of the date of this AO. This plan shall contain sufficient controls to prevent an increase in $PM_{10}$ emissions above those modeled for this AO. In addition, as a minimum the following control measures shall be included in the plan:

    a. Vacuum street sweeping for paved haul roads;
    b. Chemical stabilization for unpaved haul roads;
    c. Water sprays for conditioned sludge handling;
    d. Wet suppression with chemicals for long term reserve and emergency coal storage piles;
    e. Surfactants and compaction for active coal storage piles and their maintenance;
    f. Telescopic chute, enclosures and surfactants for coal handling.

    Any changes of the conditions established in the fugitive dust control plan must be approved by the Executive Secretary.

18. Visible fugitive dust emissions from Unit 3 haul-road traffic and mobile equipment in operational areas shall not exceed 20% opacity. Visible emissions determinations for traffic sources shall use procedures similar to Method 9. The normal requirement for observations to be made at 15-second intervals over a six-minute period, however, shall not apply. Six points, distributed along the length of the haul road or in the operational area, shall be chosen by the Executive Secretary or the Executive Secretary's representative. An opacity reading shall be made at each point when a vehicle passes the selected points. Opacity readings shall be made ½ vehicle length or greater behind the vehicle and at approximately ½ the height of the vehicle or greater. The accumulated six readings shall be averaged for the compliance value.

**Fuels**

19. The owner/operator shall use either bituminous or blend of bituminous and up to thirty percent subbituminous coals as a primary fuel, blended to meet emission performance standards. The owner/operator shall use fuel oil during the startups, shutdowns, maintenance, upset conditions and flame stabilization in the Unit 3 9050 x $10^6$ Btu/hr boiler. The owner/operator may blend self-generated used oil with coal at the active coal

pile reclaim structure providing record that self-generated used oil has not been mixed with hazardous waste.

20. The sulfur content of any fuel oil burned shall not exceed:

0.85 lb per $10^6$ Btu heat input for fuel used in the Unit 3 9050 x $10^6$ Btu/hr boiler

The sulfur content shall comply with all applicable sections of R307-203. Methods for determining sulfur content of coal shall be those methods of the American Society for Testing and Materials

A. For determining sulfur content in coal, ASTM Methods D3177-75 or D4239-85 are to be used.

B. For determining the gross calorific (or Btu) content of coal, ASTM Methods D2015-77 or D3286-85 are to be used.

C. The sulfur content of fuel oil shall be determined by ASTM Method D-4294-89 or approved equivalent. Certification of fuel oil shall either be by SPC's own testing or test reports from the fuel oil marketer.

**Federal Limitations and Requirements**

21. In addition to the requirements of this AO, all applicable provisions of 40 CFR 60, New Source Performance Standards (NSPS) Subpart A, 40 CFR 60.1 to 60.18, Subpart Da, 40 CFR 60.40a to 60.49a (Standards of Performance for Electric Utility Steam Generating Units for Which Construction in Commenced After September 18, 1978), Y, 40 CFR 60.250 to 60.254 (Standards of Performance for Coal Preparation Plants), and 40 CFR 64 (Compliance Assurance Monitoring for Major Stationary Sources) apply to this installation.

22. In addition to the requirements of this AO, all applicable provisions of 40 CFR Part 72, 73, 75, 76, 77, and 78 - Federal regulations for the Acid Rain Program under Clean Air Act Title IV apply to this installation.

**Monitoring - General Process**

23. The owner/operator shall install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMs) on the main boilers stacks and $SO_2$ removal scrubbers inlets. The owner/operator shall record the output of the system, for measuring the opacity, $SO_2$, CO, and $NO_x$ emissions. The monitoring system shall comply with all applicable sections of R307-170, UAC; and 40 CFR 60, Appendix B.

All continuous emissions monitoring devices as required in federal regulations and state rules shall be installed and operational prior to placing the affected source in operation.

Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under paragraph (d) 40 CFR 60.13, the owner/operator of an affected source shall continuously operate all required continuous monitoring devices and shall meet minimum frequency of operation requirements as outlined in 40 CFR 60.13 and Section UAC R307-170.

**Records & Miscellaneous**

24. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this Approval Order including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, inspection of the source, and records required in Condition 13. All maintenance performed on equipment authorized by this AO shall be recorded.

25. The owner/operator shall comply with R307-150 Series. Inventories, Testing and Monitoring.

26. The owner/operator shall comply with R307-107. General Requirements: Unavoidable Breakdowns.

The Executive Secretary shall be notified in writing if the company is sold or changes its name.

Under R307-150-1, the Executive Secretary may require a source to submit an emission inventory for any full or partial year on reasonable notice.

This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including R307.

A copy of the rules, regulations and/or attachments addressed in this AO may be obtained by contacting the Division of Air Quality. The Utah Administrative Code R307 rules used by DAQ, the Notice of Intent (NOI) guide, and other air quality documents and forms may also be obtained on the Internet at the following web site: http://www.airquality.utah.gov/

The annual emissions estimations below are for the purpose of determining the applicability of Prevention of Significant Deterioration, non-attainment area, maintenance area, and Title V source requirements of the R307. They are not to be used for determining compliance.

The Potential to Emit (PTE) emissions for the entire Unit 3 operations are currently calculated at the following values:

| | Pollutant | Tons/yr |
|---|---|---|
| A. | $PM_{10}$ (filterable) | 496.5 |
| B. | $SO_2$ | 3,567.5 |
| C. | $NO_x$ | 2775 |
| D. | CO | 5946 |
| E. | VOC | 107 |
| F. | $H_2SO_4$ | 174 |
| G. | Lead | 0.79 |
| H. | Total Reduced Sulfur | 29 |
| I. | Reduced Sulfur Compounds | 29 |

. HAPs

Mercury ............................................ 0.0413
Hydrochloric Acid (HCL) ............. 167.01
Fluorides/HF.................................... 20
Total HAPs........................................... 199

Approved By:

Richard W. Sprott, Executive Secretary
Utah Air Quality Board