UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
999 18TH STREET - SUITE 500
DENVER, CO 80202-2466
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Office of Partnerships and Regulatory Assistance

Air and Radiation Program

REISSUANCE OF

PREVENTION OF SIGNIFICANT DETERIORATION PERMIT (PSD)

PSD-UO-0001-2001: 00

February 2, 2001

Source

Deseret Generation & Transmission Co-Operative

Bonanza Power Plant Unit Number 1

Printed on Recycled Paper

Introduction

Deseret Generation and Transmission Co-Operative (DG&T and hereafter the Permittee) notified EPA on September 22, 1978, that it was planning to construct and operate a coal fired electric power plant (Bonanza plant) in Uintah County, Utah. The plant would be a major air emitting source under the Clean Air Act (CAA). EPA issued a conditional permit to construct and operate a coal fired electric generating plant on February 4, 1981, under Federal Prevention of Significant Deterioration PSD) regulations at 40 CFR § 52.21, Prevention of significant deterioration of air quality.

The State of Utah issued permits (Approval Orders) to the Permittee in the 1980's and 1990's. The plant is located in Indian country, on the Uintah and Ouray Reservation, and is subject to federal jurisdiction. The Permittee has not been requested to provide any new substantive information or data for this PSD permit that was not given to the State of Utah. This Permit relies on the analyses of information made available to the State of Utah in issuing Approval Orders.

The Bonanza plant is a fossil fuel-fired steam electric generating plant of more than 250 million British Thermal units per hour (MMBTU/hr) heat input capacity, defined as a major stationary source under PSD regulations at 40 CFR § 52.21(b)(1)(i). The actual heat input generation is about 4578 MMBTU/hr as reported in a March 7, 2000, electronic supplied spreadsheet for the year 2000 by the Permittee.

The Permittee performed air quality modeling analysis source information, additional impact analysis, and visibility analysis for Federal Class I areas under 40 CFR § 52.21(j), (k), (l), (m), (n), and (p) at the request of the State of Utah in September 1993. The State of Utah's conclusions from the air modeling data provided by the source, that no Federal Class I or II areas are impacted, are accepted by EPA for purposes of this Permit. No additional modeling data are required of the source by the EPA.

The State of Utah determined on November 7, 1994, that BTU increases from the 1980's by the Permittee would necessitate a major permit modification and require an updated Best Available Control Technology (BACT) analysis. The Permittee prepared on November 15, 1994, a supplemental BACT analysis as required at 40 CFR § 52.21(b)(12). The State of Utah's findings and conclusions regarding this supplemental BACT analysis are incorporated in this Permit.

The State of Utah issued Approval Order modifications on March 16, 1998, for a proposed change to the existing facility to include a ruggedized rotor for the existing existing turbine. This proposed change was below significance levels for SO_2, NO_x, PM, and PM_{10}. This PSD Permit pertains to the existing facility and approves the proposed ruggedized rotor and associated plant equipment to be added in 2000.

The Permit has conditions as stringent for SO_2, $N0_x$, PM, and PM_{10}, as those contained in the State of Utah's Approval Order of March 16, 1998.

The Permittee's Permit application to the State of Utah and EPA, dated August 14, 1980, section IV, Fugitive Emissions, states:

> Fugitive emissions at the proposed facility will result from the material handling systems, such as conveyors and storage piles, and construction and operating activities at the plant site and along the overland conveyor route. These emissions and the controls that will be utilized to reduce them are discussed in this section.

The Permittee discussed fugitive emission controls, including roads, conveyor systems, transfer points, crusher house, coal storage piles and bunkers, a dead-storage pile, terminal buildings, Silo A, Silo B, ash and limestone handling facilities, and unpaved roads.

This Permit incorporates those controls, as mentioned above and elsewhere in the August 14,1980, Permit application. Condition 7 in the 1981 conditional Permit issued by EPA has requirements for the control of fugitive emissions. This condition states:

> The emission control equipment presented in the application for handling coal, limestone, and ash shall be utilized, and the owner shall not cause to be discharged into the atmosphere fugitive emissions from any portion of the operation, excluding the outside coal storage pile, which exhibits 20 % opacity or greater.

This Permit includes conditions for fugitive emission controls, including roads, conveying systems, storage piles, and ash handling facilities, which contribute to fugitive emissions at the plant.

The Permittee provided written information to the State of Utah on control of fugitive emissions and dust control in the 1980's and 1990's. This Permit incorporates those fugitive emission control procedures.

The Permittee's original Permit applications to EPA and the State of Utah on September 22,1978, and on August 14,1980, submissions to the State of Utah in the 1980's and 1990's, including the Supplemental BACT analysis, modeling data, including communications with the EPA , and the inventory spreadsheets for 1995 and 2000, constitute the basis for the conditions in this PSD Permit reissuance, including those for fugitive emission controls.

The Permittee received a Phase II Acid Rain Permit from EPA for the Bonanza Power Plant Unit No.1 that was effective beginning January 1,1998. The Permittee must be in compliance with this Permit. Beginning January 1, 2008, the Permittee must meet a lower standard for $N0_x$ emission limits under the acid rain permit than is currently required of the facility. The Permittee has acid rain requirements for $S0_2$ emission allowances. Acid Rain permit conditions are not included in this PSD Permit.

Part A General Conditions

1. This PSD Permit applies to the following facility:

   Owner and Operator:

   Deseret Generation & Transmission Co-Operative
   10714 S. Jordan Gateway
   South Jordan, Utah 84095

   Phone Number: 801-619-6500
   FAX Number: 801-619-6599

   The equipment listed below in this PSD Permit will be operated at the following location:

   Plant Location:

   12500 East 25500 South
   Vernal, Utah 84078

   Phone Number: 435-789-9000
   FAX Number: 435-781-5816

   Bonanza Power Station Unit No. 1:
   7.45 miles northwest of Bonanza, Uintah County, Utah and 28 miles southeast of Vernal, Utah

   Universal Transverse Mercator (UTM) Coordinate System:
   4,438,606 meters Northing, 646,206 meters Easting

   The owners and operators are the Deseret Generation and Transmission Co-Operative (the Permittee).

2. The Permittee shall operate a 500 (estimated) Megawatts (MW) Bonanza Power Station No. Unit 1 according to the terms and conditions of this PSD Permit as requested in the Notice of Intent (NOI) dated December 24, 1997, and additional information submitted January 5, 1998, to the State of Utah.

3. The Permittee's approved installations shall consist of a 500 (estimated) MW coal fired steam electric generating station and associated equipment.

4. This PSD Permit replaces the State of Utah's Approval Order DAQE186-98, dated March 16,1998.

5. A. This Permit is issued in reliance upon the accuracy and completeness of the information set forth in the application to the State of Utah and that provided to EPA. On the effective date of this Permit, the Conditions herein become enforceable by EPA pursuant to any remedies it has or may have in the future, under the Clean Air Act, as amended.

   B. This Permit pertains to the existing facility and operational changes to be made with the installation of the ruggedized rotor, distributive control system, new burners, and scrubber trays that are approved for installation at the facility in calendar year 2000. The Permittee must meet requirements in this Permit for the current facility and the one with the addition of the ruggedized rotor and associated equipment.

6. Under 40 CFR § 124.15, Issuance and effective date of Permit, this Permit is effective thirty days after receipt, unless:

   A. A later date is specified in the final Permit decision, or

   B. Review is requested by the Permittee or other party under 40 CFR § 124.19, Appeal of RCRA, UIC, and PSD Permits; or

   C. No comments requested a change in the draft Permit, in which case the final Permit shall become effective immediately upon issuance.

7. This Permit may be appealed to the Environmental Appeals Board under 40 CFR §124.19. Motions to reconsider a final order on appeal are provided at 40 CFR §124.19 (g). Judicial review is available at 40 CFR § 124.19 (f).

8. This Permit may be rescinded following requirements at 40 CFR § 52.21 (w), Permit recission. The Administrator may be requested to rescind the Permit or a particular portion of the Permit under this regulation.

9. The Permittee must send all required notifications and reports required by this Permit to:

Director*
Air and Radiation Program (8P-AR)
U. S. Environmental Protection Agency Region VIII
999 18th Street , Suite 500
Denver, Colorado 80202-2466

* Richard R. Long is the current Director.

Part B Standards of Performance for New Stationary Sources, 40 CFR Part 60

10. The permitted facility is an affected facility, under 40 CFR § 60.40a, Applicability and designation of affected facility, and is therefore subject to 40 CFR § 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction Commenced After September 18, 1978.

11. Definitions of terms, abbreviations, and references used in this PSD Permit conform to those used in the Standards of Performance For New Stationary Sources), Series 40 of the Code of Federal Regulations (40 CFR), Part 60, Protection of Environment, dated 1999, specifically at 40 CFR §§ 60.2 and 60.41a, Definitions, and the Clean Air Act as amended. These definitions, terms, abbreviations, and references take precedence over those in this PSD Permit.

12. The Permittee must comply with the requirements at 40 CFR § 60.8, Performance tests.

A. 1. Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but no later than 180 days after initial startup of such facility and at such other times as may be required by EPA under section 114 of the Clean Air Act, the Permittee must conduct a performance test(s) and furnish EPA a written report of the results of such performance test(s).

2. The Permittee may satisfy Condition 12. A.1. by conducting a performance test(s) no later than 90 days after receipt of this Permit. The Permittee must conduct a performance test for the regulated pollutants in Conditions 16, 17, and 18 of this Permit, under 40 CFR § 60.8(a). A written quality assured report must be

provided to the EPA on the results of this Test within 30 days after completion of the Performance Test.

3. In order to demonstrate compliance with Conditions 12. A. 1 and 12. A. 2., the Permittee may submit as evidence the most recent quality assured continuous emission monitoring data for NO_x and SO_2, and the most recent quality assured stack test data for particulates. Otherwise, the Permittee must comply with all the requirements in Conditions 12. A.1. or 12. A. 2.

B. Performance tests must be performed as specified in this Permit and data reduced in accordance with the test methods and procedures for each method, as required at 40 CFR § 60.8(b).

C. Performance tests must be conducted under representative conditions specified by the EPA as required at 40 CFR § 60.8(c). Periods of start up, shut down, and malfunction are not representative periods.

D. The EPA must be notified of 30 days prior to the performance test and be afforded an opportunity to have an observer present during the test, as required at 40 CFR § 60.8(d).

E. The Permittee's performance testing facilities must comply with requirements at 40 CFR § 60.8(e)(1-4).

F. Performance tests must consist of three separate runs using the applicable method, and the arithmetic mean from the three runs must be reported as required at 40 CFR § 60.8(f), unless the EPA accepts the results from two runs.

13. The Permittee must comply with requirements at 40 CFR § 60.11, Compliance with standards and maintenance requirements.

A. Compliance with standards in this Permit, other than opacity standards, must be determined in accordance with requirements of 40 CFR § 60.8, unless otherwise allowed for in this Permit.

B. Compliance with opacity standards must be determined by conducting observations in accordance with Reference Method 9 in Appendix A, 40 CFR Part 60, unless an alternative EPA approved method is used as required at 40 CFR § 60.11(b).

C. The opacity standard in this Permit applies at all times except during periods of startup, shutdown, malfunction, or other provided in this Permit and as required at 40 CFR § 60.11(c).

D. The Permittee must maintain and operate the affected facility, including associated air pollution control equipment, to the extent practicable, in a manner consistent with good air pollution control practice for minimizing emissions at all times, including periods of startup, shutdown, and malfunction, in accordance with 40 CFR § 60.11(d).

E. The Permittee must comply with 40 CFR § 60.11(e)(1-6) regarding opacity measurements, including demonstrating initial compliance, using continuous opacity monitors, and reporting and submitting data to EPA, and as allowed for in this Permit.

F. Special provisions set forth under any applicable Permit condition or applicable CFR subpart shall supersede any conflicting provisions in conditions 13. A-E, as allowed at 40 CFR § 60.11(f).

G. For the purpose of determining compliance with this Permit, the EPA may use credible evidence or information in accordance with 40 CFR § 60.11(g).

14. The Permittee must comply with requirements at 40 CFR § 60.12, Circumvention.

15. The Permittee must comply with requirements at 40 CFR § 60.13, Monitoring requirements.

A. The Permittee must meet requirements at 40 CFR § 60.13(a) for performance specifications for continuous monitoring systems under 40 CFR part 60, Appendix B and, as appropriate, Appendix F.

B. The Permittee must comply with requirements at 40 CFR § 60.13(b) pertaining to installation and operation of continuous monitoring systems and devices.

C. The Permittee must comply with requirements at 40 CFR § 60.13(c)(1-2) pertaining to submitting continuous monitoring system (COMS) data for compliance with the opacity standard in this Permit. The Permittee must conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS)

during any performance test under 40 CFR § 60.8 or in accordance with 40 CFR Part 60, Appendix B. As required by EPA under section 114 of the Clean Air Act as amended, the Permittee must conduct COMS or CEMS performance tests.

D. The Permittee must check the span and zero drift of continuous emission monitoring systems as required at 40 CFR § 60.12(d)(1-2).

E. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments under Condition 14. D, all continuous monitoring systems must be in continuous operation and meet minimum frequency of operation requirements as required at 40 CFR § 60.13(e)(1-2).

F. The Permittee must meet requirements at 40 CFR § 60.13(f) to comply with requirements that all continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of 40 CFR Part 60, Appendix B, must be used.

G. The Permittee must meet requirements at 40 CFR § 60.13(g) pertaining to effluents from a single affected facility or two or more affected facilities subject to the same emission standards are combined before being released to the atmosphere.

H. The Permittee must comply with requirements at 40 CFR § 60.13(h) related to data reduction for all continuous monitoring systems for measurement of opacity. Data recorded during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero span adjustments shall not be included in the data averages. An arithmetic or integrated average of all data may be used. All excess emissions must be converted into units of the standard as specified using applicable conversion procedures.

I. The Permittee may provide the EPA with a request for alternatives to any monitoring procedures or requirements at 40 CFR § 60.13(i)(1-9). The EPA may approve requested alternatives to any monitoring procedures or requirements.

J. The Permittee may request an alternative to the relative accuracy test specified 40 CFR Part 60 Performance Specification 2, Appendix B as allowed under 40 CFR § 60.13(j)(1-2).

Part C New Source Performance Measures Emission Limitations and Test Procedures

16. Particulate Matter (PM) Emission Limitations

A. The Permittee must comply with requirements at 40 CFR § 60.42a, Standard for particulate matter.

B. The Permittee's Bonanza Unit No. 1 must not discharge into the atmosphere PM in excess of 0.03lbs/MMBTU heat input from the tall stack, as required at 40 CFR § 60.42a(a)(1).

C. The Permittee must not discharge to the atmosphere PM in excess of one percent concentration (99 percent reduction) from the tall stack, when combusting solid fuel, as required at 40 CFR § 60.42a(a)(2).

D. The Permittee's visible emissions from any source must not exceed 20% opacity (6-minute average), except for one 6-minute period per hour of not more than 27% opacity, from any affected facility, including the 600 foot tall stack, as required at 40 CFR § 60.42a(b).

17. Sulfur Dioxide Emission Limitations

A. The Permittee must comply with requirements at 40 CFR § 60.43a, Standards for sulfur dioxide.

B. The Permittee's Bonanza Unit No. 1 must not discharge SO_2 in excess of 1.20lbs/MMBTU heat input and must achieve at least 90% SO_2 reduction, or 70% SO_2 reduction when the emissions are less than 0.60 lbs/MMBTU, as required at 40 CFR § 60.43a(a)(1)-(2).

C. The Permittee must comply with the requirements 40 CFR § 60.43a (a)(c-f) if combusting specified fuels.

D. The Permittee must demonstrate compliance with the emission limitation and the percent reduction based on a 30-day rolling average as required at 40 CFR § 60.43a(g).

E. The Permittee must comply with the applicable standard by use of the proration formula at 40 CFR § 60.43a(h)(1).

18. Nitrogen Oxides (NO_x) Emission Limitations

A. The Permittee must comply with requirements at 40 CFR § 60.44a, Standard for nitrogen oxides.

B. The Permittee's Bonanza Unit No. 1 must not discharge into the atmosphere NO_x in excess of the emission limit of 0.50 lbs/MMBTU heat input when subbituminous coal is fired, or 0.60 lbs/MMBTU when bituminous coal is fired, based on a 30-day rolling average, as required at 40 CFR § 60.44a(a)(1). When subbituminous and bituminous coal are fired simultaneously, the applicable NO_x emission standard must be determined by proration using the formula at 40 CFR § 60.44a(c).

C. The Permittee must achieve at least a 65% NO_x reduction of potential combustion concentration, as required at 40 CFR § 60.44a(a)(2).

19. The Permittee may apply for a commercial demonstration Permit using emerging technology as allowed by 40 CFR § 60.45a(a), Commercial demonstration permit.

20. The Permittee must comply with the requirements at 40 CFR § 60.46a(a), Compliance provisions.

A. The PM emission standards under 40 CFR § 60.42a and NO_x standards under 40 CFR § 60.44a apply at all times, except for periods of startup, shutdown, or malfunction, as required at 40 CFR § 60.46a(c).

B. As provided at 40 CFR § 60.46a(a), compliance with the particulate matter emission limitation under 40 CFR § 60.42a(a)(1) constitutes compliance with the percent reduction requirements for particulate matter at 40 CFR § 60.42a(a)(2) and (3).

C. As provided at 40 CFR § 60.46a(b), compliance with NO_x emission limitations under 40 CFR § 60.44a(a) constitutes compliance with the percent reduction under 40 CFR § 60.44a(a)(2).

D. The SO_2 emission standards under 40 CFR § 60.43a(a) apply at all times, except during periods of startup, shutdown, or when emergency conditions exist and the provisions of 40 CFR § 60.46a(d) are implemented.

E. After the initial performance test required at 40 CFR § 60.8, Performance tests, the SO_2 emission limitations and percent reduction requirements and the NO_x emission limitations are determined as required at 40 CFR § 60. 46a (e),(f), and (g). A separate performance test is to be completed at the end of each boiler operating day and a new 30-day average emission rate is to be calculated to show compliance with the standards.

F. If the Permittee has not obtained the minimum quantity of emissions data for SO_2 and NO_x, as required under 40 CFR § 60.46a(h), compliance of the affected facility with the emission requirements for these constituents under §§ 60.43a(a) and 60.44a(a) for the day on which the 30-day period ends may be determined by EPA by following the applicable procedures in section 7 of Method 19.

21. The Permittee must comply with requirements at 40 CFR § 60.47a, Emission monitoring.

A. Opacity is measured using a properly operating continuous monitoring system as required at 40 CFR § 60.47a(a).

B. SO_2 emissions are measured using a properly operating continuous monitoring system as required at 40 CFR § 60.47a(b).

C. NO_x emissions are measured using a properly operating continuous monitoring system as required at 40 CFR § 60.47a(c).

D. Carbon Dioxide (CO_2) must be measured at each location where SO_2 and NO_x are monitored using a continuous monitoring system as required at 40 CFR § 60.47a(d).

E. The continuous monitoring system to monitor the emission limits established in Conditions 14 and 15 must be operated during all periods of operation of the affected facility, including periods of start up, shutdown, malfunction or emergency conditions, except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, under 40 CFR § 60.47a(e).

F. If minimum data requirements for continuous emission monitoring (18 hours in at least 22 out of 30 successive boiler days) cannot be met, the Permittee must supplement continuous monitoring data as allowed under 40 CFR § 60.47a(f).

G. 1-hour (one hour) averages must be calculated and reported as required at 40 CFR § 60.47a(g).

H. When it becomes necessary to supplement continuous monitoring system data to meet minimum data requirements in Condition 18(F), under 40 CFR § 60. 47a(h), Method 6 must be used to determine SO_2 concentrations and Method 7 must be used to determine NO_x concentrations, or an EPA certified monitoring system may be used to provide continuous monitoring system data. The emissions rate correction factor, integrated bag sampling and analysis procedure of Method 3B must be used to determine oxygen (O_2) and CO_2. The procedures in Method 19 must be used to compute each 1-hour average concentration in lbs/MMBTU heat input.

I. The Permittee's monitoring system performance evaluations and calibration checks must comply with requirements at 40 CFR § 60.47(i).

J. The Permittee may use the following as alternatives to the reference methods and procedures under 40 CFR § 60.47a(j): for Method 6, alternative Methods 6A, 6B, or 6C; for Method 7, alternative Methods 7A, 7C, 7D, or 7E, for Method 3, alternative Methods 3A or 3B, and for Method 3B, Method 3A may be used.

22. The Permittee must comply with 40 CFR § 60.48a, Compliance determination procedures and methods.

A. For conducting the performance tests required at 40 CFR § 60.8, the Permittee must use Methods in 40 CFR Part 60, Appendix A as reference methods, required at 40 CFR § 60.48a, Compliance determination procedures and methods.

B. The following table summarizes the test Methods and Procedures that must be used to measure emissions rate and concentrations:

Pollutant	PM	Opacity	SO_2	NO_x
Method[a]	19[b] 5[b]	9[c]	19[d] 6[f]	19[e] 7[f]

[a] Alternative Methods specified under 40 CFR §60.48a(e) may be used at the Permittee's option.

[b] Method 19 for emission rate; Method 5 for particulate emissions.

The continuous monitoring system must be used to determine concentrations of SO_2, CO_2, or O_2.

[c] The Permittee must comply with Condition 18.A. for using a continuous monitoring system to measure the opacity of emissions discharged to the atmosphere. Method 9 may be used provided the opacity continuous monitoring system is inoperative. The Permittee must record the Method 9 data in the Permittee's operating log for the opacity continuous monitoring system. Method 9 must be done each and every hour during visible light and the data must be recorded in the opacity continuous monitoring system log.

[d] The formula to calculate the percent of potential SO_2 emission reduction to the atmosphere under 40 CFR § 60.48a(c)(1-5) or concentrations of SO_2, and CO_2 or O_2 must be used as appropriate.

[e] The continuous monitoring system may be used to determine concentration requirements for NO_x, CO_2, or O_2.

[f] Continuous emission monitoring system (CEMS) may be used to determine compliance with SO_2 and NO_x requirements.

Part D **Prevention of Significant Deterioration of Air Quality 40 CFR § 52.21**

23. Definitions of terms, abbreviations, and references used in this PSD Permit conform to those used in the Prevention of Significant Deterioration of Air Quality, 40 CFR § 52.21(b), Definitions. These terms, definitions, abbreviations, and references take precedence over those in this PSD Permit.

Part E PSD Emission Limitations and Test Procedures

24. Particulate Matter (PM) and PM_{10} Emission Limitations

A. The Permittee's Bonanza Unit No. 1 must not discharge to the atmosphere PM at a rate exceeding 0.0297 lbs/MMBTU heat input as determined by test methods in 40 CFR § 60, Appendix A, Methods 1-5-5e and 19 or other EPA approved test methods

B. The Permittee's Bonanza Unit No. 1 must not discharge to the atmosphere PM_{10} particulate matter at a rate exceeding 0.0286 lbs/MMBTU heat input as determined by 40 CFR § 51, Appendix M, Method 201, Determination of PM_{10} Emissions or Method 201 A, Determination of PM_{10} Emissions (Constant Sampling Rate Procedure).

C. The Permittee may use the PM_{10} particulate matter test results as allowed in Condition 24. B. that are less than 0.0286 lbs/MMBTU heat input to demonstrate compliance with Conditions 24. A. and B.

D. The Permittee's visible emissions from the affected facility must not exceed 20% opacity, as determined by continuous monitoring system (6-minute average), except for one six-minute period per hour of not more than 27% opacity, as determined by the continuous monitoring system, as required at 40 CFR § 60.47(a)(a). The Permittee may use EPA Method 9 when the opacity continuous monitoring or back up system is not operating.

25. Sulfur Dioxide Emission Control

A. The Permittee's Bonanza Unit No. 1 must not discharge to the atmosphere SO_2 at a rate exceeding 0.0976 lbs/MMBTU heat input over a rolling 12-month average. Compliance must be determined by calculating the rolling 12-month average, based on CEM data and fuel heat input. On the first day of each month, a new 12-month average must be calculated using data from the previous 12 months.

B. The Permittee's Bonanza Unit No. 1 must not discharge SO_2 to the atmosphere at a rate exceeding 0.15 lbs/MMBTU heat input using a rolling average over 30 successive boiler operating days. Compliance must be determined by the same methods used to determine compliance with the $S0_2$ emission limitation in Condition 17. D.

C. The Permittee must achieve at least 90% $S0_2$ removal efficiency based on a 30-day rolling average.

D. The Permittee may use scrubber slurry additives, such as adipic acid, lime, etc., to increase the dissolved alkalinity of the slurry reagent used in the fluid gas desulfurization (FGD) scrubber.

E. The Permittee's compliance with the SO_2 removal requirements must be based on data from the outlet SO_2 CEM and either inlet SO_2 data from the CEM or coal analysis data, over a 30-day rolling average. The total percent removal must be computed using the total available sulfur from the coal analysis and overall sulfur removal. Compliance must be determined by calculating the arithmetic average for all valid hourly emission rates for SO_2 for the 30-successive boiler operating days.

F. The Permittee may suggest for EPA approval a method for sulfur analysis in the coal for compliance with Condition 25. E. The method must be an EPA approved Method for sulfur analysis in coal, or be an acceptable industrial analytical procedure for determining sulfur in coal.

26. The Permittee must conduct continuous emission monitoring system (CEMS) testing for NO_x and SO_2 in the tall stack as required by 40 CFR Part 60, Appendix F, Quality Assurance Procedures. The Permittee must perform calibration drift (CD), relative accuracy (RA), cylinder gas audit (CGA), reference methods analysis (RMs),relative accuracy test audit (RATA), and relative accuracy audit (RAA) determinations at 40 CFR Part 60, Appendix F. The testing frequency can be no less than that specified in Appendix F and applies to Part E of this Permit. The Permittee must provide EPA with information required by the Data Assessment Report (DAR) for each quarterly audit with the report of emissions required by Appendix F.

27. Nitrogen Oxides Emission Control

The Permittee's Bonanza Unit No. 1 must not discharge into the atmosphere NO_x in excess of 0.50 lbs/MMBTU heat input when subbituminous coals is fired, or 0.55 lbs/MMBTU heat input when bituminous coal is fired, based on a 30-day rolling average. If subbituminous and bituminous coal are fired simultaneously, the applicable NO_x emission standard must be determined by proration using the formula in 40 CFR § 60.44a(c), but must not have NO_x emissions in excess of 0.55 lbs/MMBTU heat input, based on a 30-day rolling average. Compliance must be determined by calculating the arithmetic average of all valid hourly emission rates (at least two values each hour are required) for NO_x for 30 successive boiler operating days, based on continuous emission monitoring data and fuel heat input.

BACT for Roads and Fugitive Emissions

28. The Permittee must enclose the coal and limestone conveyors and all drop points must be vented to fabric dust collectors.

29. The Permittee must ensure that the track hopper for bottom dump coal shall have water sprays in place. The water spray must be used during dumping when conditions warrant. Conditions which warrant operation of the sprays are defined as any time the 20% opacity level is in jeopardy of being exceeded. To ensure that the sprays are always operative, the equipment must be tested at least once per month, except when weather conditions prohibit. A log of testing and operation must be kept. The log must include:

    A. Times of testing and results
    B. Times of coal deliveries
    C. Times of spray operation
    D. Weather conditions at time of coal deliveries
    E. Coal conditions (washed, unwashed, dry, moist, etc.)

30. The Permittee's coal pile shall not exceed 22 acres in total area. The active reclaim area must not exceed 11 acres at any one time. The reclaim area may be moved to any location on the coal pile. The remainder of the coal pile must be the long-term storage area. Emissions of particulate from the long-term storage area must be controlled by compaction of the coal pile surface and sealing with a surfactant initially and by subsequent application of sealing agent as warranted. A surfactant and spray mechanism to apply it must be available and operative at all times. Conditions which warrant application of the

surfactant are defined as any time the 20% opacity level might be exceeded. A log of operation must be kept. The log must include:

A. Times of spray operation
B. Compaction operation
C. Weather conditions
D. Surface conditions (dry, crumbled, moist, etc.)

31. The Permittee's limestone storage must be sealed with a surfactant as dry conditions warrant or as determined necessary by the EPA.

32. The Permittee must manage the fly ash/FGD sludge mixture at the end of the conveyor and prior to being completely covered in accordance with landfill procedures. The Permittee must add sprayed water to minimize fugitive emissions as conditions warrant, in accordance with the facility's fugitive dust control plan.

33. The Permittee must maintain a record/log of stabilization work done which includes dates, type of stabilizing agent, amount applied, and area of application.

34. The Permittee must water spray and/or chemically treat all unpaved roads and other unpaved operational areas that are used by mobile equipment to control fugitive dust. The application of water or chemical treatment must be used. Treatment must be of sufficient frequency and quantity to maintain the surface material in a damp/moist condition. The opacity must not exceed 20% during all times the areas are in use or the outside temperature is below freezing. If chemical treatment is to be used, the plan must be approved by the EPA. The Permittee must maintain records of water treatment for all periods when the plant is in operation. The records must include the following items:

A. Date
B. Number of treatments made, dilution ratio, and quantity
C. Rainfall received, if any, and approximate amount
D. Time of day treatments were made

Records of treatment must be made available to the EPA upon request and must include a period of two years ending with the date of the request.

35. The Permittee must control visible emissions from haul-road traffic and mobile equipment in operational areas by implementing procedures in its dust control plan.

36. The Permittee must develop a Fugitive Emissions Dust Control Plan and provide EPA with a copy of this Plan 90 days after the effective date of this Permit. This Plan must address all applicable Conditions in this Permit. The Permittee must review this Plan annually, by the anniversary date of this Permit, and, if necessary, update or change the Plan to ensure that fugitive emissions are minimized from the facility. The Permittee must provide EPA with the most current copy of the Fugitive Emissions Dust Control Plan within 90 days after revisions are made to it.

Part F PSD Monitoring Requirements Table

37. The Permittee must perform stack testing to show accuracy of continuous emission monitoring systems with the emission limitations stated in the above conditions, and as specified below:

A.

Emission Point	Pollutant	Testing Status	Test Frequency
Unit No. 1			
600 foot tall stack	PM	*	***
	PM_{10}	*	***
	SO_2	**	***
	NO_x	**	***

B. Testing Status (to be applied above)

* Compliance testing is required. EPA may require testing at any time in accordance with 40 CFR § 60.8, Performance tests. The Permittee may elect to use any approved EPA method cited in this Permit. The Permittee may request that alternative EPA approved methods be used instead of those cited in this Permit. The stack testing is to done to test the accuracy of the continuous opacity monitoring system.

**Stack testing is done to verify the accuracy of the continuous emission monitoring systems.

*** Test every year unless a lesser testing frequency is requested by the Permittee and is approved by EPA.

C. PM and PM_{10}

1. The Permittee must note if liquid drops are present in the 600 foot stack and take methods to eliminate the liquid drops. If the Permittee finds no reasonable method to eliminate the drops, then the Permittee must use methods: 40 CFR Part 60, Appendix A, Method 5, 5A, 5B, 5D, 5E, 5G, or 5H as appropriate. The Permittee must test the back half condensibles, using the method specified by EPA. The portion of the front half of the catch and the impinger catch must be combined and be considered PM_{10} and must be based on information in AP-42, Appendix C, latest edition, Compilation of Air Pollutant Emission Factors, or other acceptable data to EPA.

2. The sample location must be as specified in 40 CFR Part 60, Appendix A, Method 1.

3. The volumetric flow rate must be determined as specified in 40 CFR Part 60, Appendix A, Method 2, Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube) or Methods 2E, 2F, 2G, and 3D or an alternative method that has EPA's approval.

4. The Permittee's compliance with Condition 21. D. fulfills the requirements in Condition 37. C.

D. Sulfur Dioxide (SO_2)

40 CFR Part 60, Appendix A, Method 6, Determination of Sulfur Dioxide Emissions from Stationary Sources or Method 6A, 6B, or 6C or an approved EPA Method.

E. Nitrogen Oxides (NO_X)

40 CFR Part 60, Appendix A, Method 7, Determination of Nitrogen Oxide Emissions From Stationary Sources, or Methods 7A-7E or an approved EPA method.

F. The Permittee must report emission rates and removal efficiency under 40 CFR Part 60, Appendix A, Method 19, Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates.

Part G Air Pollution Equipment Operation and Operator Training

38. A. The Permittee must adequately and properly maintain all installations and facilities authorized by this PSD Permit. Instructions from the vendor or established maintenance practices that maximize pollution control must be used. All necessary equipment control and operating devices, such as electronic monitoring displays, pressure gauges, amperes and voltage measurements, flow rate indicators, temperature gauges, CEMs, etc., must be installed and operated properly and easily accessible to compliance inspectors.

    B. A copy of all manufacturers' operating instruction for pollution control equipment and pollution emitting equipment must be kept on site. These instructions must be available to all employees and personnel who operate the equipment and must be made available to compliance inspectors upon their request.

    C. The Permittee may have written dated guidance available to ensure the proper operation and maintenance of pollution control equipment that supplements or complements manufacturer's instructions. This guidance may be prepared based on the Permittee's experience with operating pollution control equipment. These instructions must be available to all employees and personnel who operate the equipment and must be made available to compliance inspectors upon their request.

39. The Permittee must provide adequate training and periodic re-training to all employees or personnel who operate air pollution control equipment.

40. Records of operator training must be made available to EPA upon verbal or written request. This PSD Permit must be made available to all employees or personnel by the Permittee who operate the equipment in this PSD Permit.

41. The Permittee must meet requirements at 40 CFR §§ 60.7 and 11, Notification and record keeping, and Compliance with standards and maintenance requirements, respectively. These rules address start up, shutdown, or malfunction reporting requirements.

42. The Permittee must calculate/estimate the excess emissions whenever a breakdown occurs. The total of excess emissions must be reported semiannually to EPA as required at 40 CFR § 60.7(c)-(g) unless more frequent reporting is requested by EPA.

43 All records referenced in this PSD Permit or in applicable NSPS requirements, which are required to be kept by the Permittee, must be made available by the Permittee to EPA upon verbal or written request.

44. The Permittee must keep records for a period of five years, unless EPA requires that the records be maintained for a longer period of time.

Part H Modification and Reconstruction

45. The Permittee must request approval of any future modifications to the equipment or conditions in this PSD Permit related to New Source Performance Standards in accordance with requirements at 40 CFR § 60.14, Modification.

46 The Permittee must comply with BACT requirements at 40 CFR § 52.21(j), Control technology review, for major modifications or phased construction projects.

47. The Permittee must comply with requirements at 40 CFR § 60.15, Reconstruction.

Part I Sale or Name Change

48. The Permittee must notify EPA in writing if the company is sold or changes its name. The notification must be submitted within 30 days of such proposed action.

Part J Compliance with Environmental Laws

49. This PSD Permit does not release the Permittee from any liability for compliance with other applicable federal and Tribal environmental law and regulations, including the Clean Air Act.

Part K Inspections and Notifications

50. The Permittee must allow EPA or its authorized representatives to inspect the source during normal business hours for purposes of ascertaining compliance with all the conditions of this PSD Permit in accordance with requirements at Part 113, Federal enforcement, and Part 114, Record keeping, inspections, monitoring, and entry of the Clean Air Act as amended.

51. The Permittee must provide notification of the test date to EPA at least 30 days before the test for each of the above pollutants. A pretest conference must be held, if requested by EPA. The conference must be held at least 30 days before the test between the Permittee, the tester, and EPA. The emission point must be designed to conform to the requirements of 40 CFR § 60, Appendix A, Method 1, and approvable access must be provided to the test location by Permittee.

United States Environmental Protection Agency Region VIII

By: Kerrigan G. Clough

Kerrigan G. Clough
Assistant Regional Administrator
Office of Partnerships and Regulatory Assistance

Date: FEB - 2 2001