United States Environmental Protection Agency
Region 8 Air Program
1595 Wynkoop Street
Denver, CO 80202

Air Pollution Control
Minor Source Permit to Construct

40 CFR 49.151

 # MNSR-UO-000004-2015.004

Permit to Construct to establish legally and practically enforceable limitations and requirements on sources at an existing facility

Permittee:

Deseret Generation & Transmission Cooperative

Permitted Facility:

Bonanza Power Plant
Uintah & Ouray Indian Reservation
Uintah County, Utah

Summary

On November 2, 2015, the EPA received an application from Deseret Generation & Transmission Cooperative, requesting a Minor New Source Review (MNSR) permit for the Bonanza Power Plant (the Plant or the facility), located near Bonanza, Utah, in accordance with the requirements of the Tribal MNSR Permit Program at 40 CFR Part 49.

This permit action applies to an existing facility operating on Indian country lands within the Uintah & Ouray Indian Reservation. The facility consists of a single 500-megawatt coal-fired electric utility boiler and associated equipment, known as Bonanza Unit 1. The facility is supplied with coal from the Deserado coal mine, located approximately 35 miles east of the facility.

This permit authorizes the replacement of the existing low-NO_x burners (LNBs) with new LNBs, along with installation of overfire air (OFA), to reduce nitrogen oxide (NO_x) emissions. This permit does not authorize the construction of any new emission sources, nor emission increases from existing units. This permit incorporates the NO_x control requirements and emission limits, as well as a coal consumption cap, from a settlement agreement between Deseret Generation & Transmission Cooperative, Sierra Club, Wild Earth Guardians, and the EPA, related to air emissions at the facility. The purpose of the settlement agreement is to resolve an appeal by Sierra Club and Wild Earth Guardians of the Federal Title V Operating Permit No. V-UO-000004-00.00, issued by the EPA on December 5, 2014. The appeal was filed with the Environmental Appeals Board (EAB) on January 7, 2015 (Appeal Nos. CAA 15-01; CAA 15-02). The EAB stayed the appeal pending EPA's final action on Deseret's application for this MNSR permit. The settlement agreement, identified by Docket ID No. EPA-HQ-OGC-2015-0678, was published as a proposed settlement in the Federal Register on October 22, 2015 (80 FR 63993) and was finalized on December 23, 2015.

The reductions in emissions from compliance with this MNSR permit are settlement agreement requirements and can be used when determining applicability of other Clean Air Act (CAA) requirements, such as the Prevention of Significant Deterioration (PSD) Permit Program at 40 CFR Part 52 and the Title V Operating Permit Program at 40 CFR Part 71.

The EPA has determined that issuance of this MNSR permit will not cause or contribute to any National Ambient Air Quality Standard (NAAQS) violations, or have potentially adverse effects on ambient air quality.

Table of Contents

I. Conditional Permit to Construct 4

A. General Information 4

B. Applicability 4

C. Nitrogen Oxide (NO_x) Control Requirements and Emissions Limits 4

D. Coal Consumption Cap 5

E. Monitoring Requirements 6

F. Recordkeeping Requirements 8

G. Records Retention Requirements 9

H. Reporting Requirements 9

II. General Provisions 11

A. Conditional Approval 11

B. Authorization 13

I. Conditional Permit to Construct

A. General Information

Facility:	Deseret Generation & Transmission Cooperative, Bonanza Power Plant, Bonanza, Utah
Permit Number:	MNSR-UO-000004-2015.004
SIC Code and SIC Description:	4911 – Electric Services

Plant Mailing Address
12500 East 25500 South
Vernal, UT 84078-8525

Corporate Mailing Address
Deseret Generation & Transmission Cooperative
10714 South Jordan Gateway, Suite 300
South Jordan, UT 84095

Plant Location
7.5 miles NW of Bonanza, Utah
28 miles SE of Vernal, Utah
Latitude/Longitude:
40E 4.94' N / 109E 17.48" W

The equipment listed in this permit may only be operated by Deseret Generation & Transmission Cooperative at the location described above.

B. Applicability

1. This permit is being issued under authority of the Tribal MNSR Permit Program at 40 CFR Part 49.

2. The requirements in this permit have been created, at the Permittee's request to establish legally and practically enforceable restrictions for limiting NO_x emissions and coal consumption.

3. Any conditions established for this facility or any specific units at this facility pursuant to any permit issued under the authority of the PSD Permit Program or the MNSR Permit Program shall continue to apply.

4. By issuing this permit, the EPA does not assume any risk of loss which may occur as a result of the operation of the permitted facility by the Permittee, Owner, and/or Operator, if the conditions of this permit are not met by the Permittee, Owner, and/or Operator.

C. Nitrogen Oxide (NO_x) Control Requirements and Emissions Limits

1. The Permittee shall install and operate low NO_x burners with overfire air (LNB/OFA) at the Plant no later than June 30, 2016, if the EPA Region 8 issues a final MNSR permit for the Plant on or before December 31, 2015, or no later than June 30, 2018, if the EPA Region 8 issues a final MNSR permit for the Plant on or after January 1, 2016.

2. Beginning no later than 425 boiler operating days after installation of LNB/OFA, Bonanza Unit 1 shall not discharge into the atmosphere NO_x in excess of 0.28 pounds per million British thermal units (lbs/MMBtu) heat input, based on a 365 boiler operating day rolling average. A "boiler operating day" means a 24-hour period between midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit, as defined by 40 CFR Part 60 Subpart Da. Compliance shall be monitored as laid out in condition I.E.3 of this permit. A new 365 boiler operating day rolling average emission rate shall be calculated for each new boiler operating day.

3. Total NO_x emissions from the Plant shall not exceed 5,700 tons per year on a rolling 12 calendar month basis (the "Base Limit"), to begin in the third calendar month that permitted operations of LNB/OFA commence. The Permittee shall provide written notification to EPA Region 8 of the date that operation of the LNB/OFA commences. Compliance shall be monitored as laid out in condition I.E.4 of this permit. A new 12-month emission total shall be calculated at the end of each calendar month.

4. For the period from January 1, 2030, until the permanent cessation of operations to generate electricity at Bonanza Unit 1 (the "End of Service"), total NO_x emissions from the Plant shall not exceed 3,000 tons per year on a rolling 12 calendar month basis. Compliance shall be monitored as laid out in condition I.E.4 of this permit. A new 12-month emission total shall be calculated at the end of each calendar month.

5. In determining NO_x emissions under condition I.C of this permit, from the period beginning no later than 60 boiler operating days after installation of the LNB/OFA until the End of Service, the Permittee shall use data from the continuous emission monitoring system (CEMS) as defined in 40 CFR §72.2 and installed and operated in accordance with 40 CFR Part 75, and shall include all periods of startup, shutdown, and malfunction. The NO_x data need not be bias adjusted and the missing data substitution procedures of 40 CFR Part 75 shall not apply to such determinations. Diluent capping (i.e., 5% carbon dioxide (CO_2)) may be applied to the NO_x emission rate for any hours where the measured CO_2 concentration is less than 5%, following the procedures in 40 CFR Part 75, Appendix F, Section 3.3.4.1.

D. Coal Consumption Cap

1. Subject to the provisions of condition I.D.3 of this permit, for the period from January 1, 2020 through End of Service of Unit 1, coal consumption at the Plant shall not exceed 20,000,000 short tons of coal.

2. Coal consumption under this condition I.D shall be determined by weight avoirdupois, regardless of coal source or quality. Quantity of coal consumed will be measured by the Unit 1 coal pulverizer feeder belt scales and calculated monthly. Reports of accumulated coal consumption shall be submitted as required by condition I.H.3. The pulverizer feeder belt scales shall be calibrated per manufacturer's calibration procedures no less than twice per calendar year and in at least two (2) different calendar quarters during the year. A pulverizer feeder belt scale calibration shall also be conducted when a pulverizer feeder belt is replaced.

   A copy of the calibration procedure and, for each calibration, a record of the pulverizer number, calibration data and reason for calibration shall be kept on site. A copy of any

revision to the manufacturer's calibration procedures and a record of the dates of each completed calibration shall be provided by the Permittee with its annual compliance certification required by 40 CFR §71.6(c)(5).

3. Contingent Releases from Coal Consumption Cap

(a) The coal consumption cap in condition I.D.1 of this permit shall not apply after the date that any of the following events occur:

(i) The Permittee applies for and receives approval to construct from the EPA (to the extent required), and installs and operates Selective Catalytic Reduction (SCR) for NO_x control at Unit 1 prior to December 31, 2029, and Unit 1 achieves and continuously complies with a NO_x emission limit of 0.05 lb/MMBtu on a 12-month rolling average, measured with CEMS (with permit terms that establish monitoring, recordkeeping and reporting requirements specific to the SCR system) as defined and required in condition I.C.5 of this permit, beginning no later than 180 days after the SCR installation is complete; or

(ii) Due to petitions or other actions commenced by unaffiliated third parties or governmental authorities (including the EPA), and without the Permittee's consent, the Permittee is required to and does install and operate an SCR at Unit 1 prior to December 31, 2030, and achieves and continuously complies with a NO_x emission limit of 0.05 lb/MMBtu on a 12-month rolling average, measured with CEMS (with permit terms that establish monitoring, recordkeeping and reporting requirements specific to the SCR system) as defined and required in condition I.C.5 of this permit, beginning no later than 180 days after the SCR installation is complete.

(b) As required by the proposed settlement agreement, the Permittee shall notify the Sierra Club and Wild Earth Guardians of its decision to install and operate an SCR at Unit 1 at least 24 months in advance of its intended date for commencing SCR operation, and shall apply to the EPA for a revision to this permit at least 12 months in advance of its intended date for commencing construction, and shall receive a revision to this permit before commencing construction of SCR, to incorporate requirements for SCR.

(c) If the Permittee does not notify Sierra Club and Wild Earth Guardians of its choice to install SCR prior to December 31, 2027 (in the event of voluntary SCR installation under condition I.D.3.(a)(i) of this permit), or prior to December 31, 2028 (in the event of SCR installation under condition I.D.3.(a)(ii) of this permit), then the release in condition I.D.3.(a) of this permit shall not apply and the coal consumption cap in condition I.D.1 of this permit will continue in effect until the End of Service of Unit 1.

E. Monitoring Requirements [40 CFR §49.155(a)(3)]

1. CEMS Required. At all times after the effective date of this permit, a NO_x CEMS in the Unit 1 Main Stack, as defined in 40 CFR §72.2, shall be maintained, calibrated, and operated in full compliance with the requirements found at 40 CFR Part 75, to accurately

measure NO_x, diluent, and stack gas volumetric flow rate. The CEMS shall be used to determine compliance with the NO_x emission limitations in this permit.

2. CEMS Operation. The Permittee shall maintain and operate the CEMS consistent with requirements at 40 CFR Part 75 including, but not limited to, the following:

   (a) For any hour in which fuel is combusted in Unit 1, the hourly average NO_x concentration in lb/MMBtu at the CEMS shall be calculated, in accordance with the requirements of 40 CFR Part 75.

   (b) An hourly average NO_x emission rate in lb/MMBtu is valid only if the minimum number of data points, as specified in 40 CFR Part 75, is acquired by both the NO_x pollutant concentration monitor and the diluent monitor (oxygen (O_2)) or carbon dioxide (CO_2).

   (c) Data reported to meet the requirements of this section shall not include data substituted using the missing data substitution procedures of Subpart D of 40 CFR Part 75, nor shall the data have been bias adjusted according to the procedures of 40 CFR Part 75.

3. Monitoring compliance with NO_x emission limit in lb/MMBtu on a 365 boiler operating day rolling average.

   At the end of each boiler operating day, a new 365 boiler operating day rolling average emission rate in lb/MMBtu for NO_x shall be calculated and recorded, as follows:

   (a) Sum the pounds of NO_x emitted from Unit 1 during the most recent boiler operating day and the previous 364 boiler operating days, based on NO_x CEMS data;

   (b) Sum the total heat input to Unit 1 in MMBtu during the most recent boiler operating day and the previous 364 boiler operating days, using data from the Unit 1 heat input monitoring system; and

   (c) Divide the total number of pounds of NO_x emitted during the 365 boiler operating days by the total heat input during the 365 boiler operating days. Periods of boiler operation during startup, shutdown and malfunction shall be included in the calculation of average emission rates. No periods of boiler operation may be excluded.

4. Monitoring compliance with NO_x emission limits in tons on a rolling 12-month basis.

   At the end of each calendar month, a new 12-month total for NO_x emissions shall be calculated and recorded, as follows:

   (a) Sum the pounds of NO_x emitted from Unit 1 for the calendar month, based on NO_x CEMS data;

   (b) Add the sum to the pounds of NO_x emitted from Unit 1 for the previous 11 calendar months and convert the result to tons. Periods of boiler operation during startup,

shutdown and malfunction shall be included in the calculation of tons of emissions. No periods of boiler operation may be excluded.

For monitoring continuous compliance with the NO_x emission limit of 5,700 tons per rolling 12-month period, the first compliance calculation shall be recorded no later than fifteen calendar months after permitted operation of LNB/OFA commences, and shall cover the 12-month period beginning three months after permitted operation of LNB/OFA commences.

For monitoring continuous compliance with the NO_x emission limit of 3,000 tons per rolling 12-month period, which takes effect beginning in the year 2030, the first compliance calculation shall be recorded no later than the end of December 2030, and shall cover the 12-month period beginning January 1, 2030.

F. Recordkeeping Requirements [40 CFR §49.155(a)(4)(i)]

The Permittee shall keep the following records:

1. All NO_x CEMS data, including all rolling 365 boiler operating day NO_x emissions in lb/MMBtu, all rolling 12-month NO_x emissions in tons, and all information used to calculate these values.

2. All coal consumption data and associated weight measurements at the coal pulverizer feeder belt scales used to demonstrate compliance with this permit, to include records of any calibration of the weighing device and the calibration procedure.

3. Records of quality assurance and quality control activities for the NO_x CEMS, including, but not limited to, any records required by 40 CFR Part 75.

4. Records of all major maintenance activities conducted on the air pollution control equipment and NO_x CEMS covered by this permit.

5. Any other NO_x CEMS records required by 40 CFR Part 75.

6. All specifications and maintenance requirements developed by the manufacturer, vendor, or Permittee for each emission control and monitoring device required in this permit, including any updates to such requirements.

7. All calibration, maintenance, repairs, rebuilds or replacements conducted for each emission control device and monitoring device required in this permit.

8. The results of all required performance testing and monitoring in this permit. The records shall include the following:

   (a) The date, place, and time of sampling or measurements;

   (b) The date(s) analyses were performed;

   (c) The company or entity that performed the analyses;

(d) The analytical techniques or methods used;

(e) The results of such analyses or measurements; and

(f) The operating conditions as existing at the time of sampling or measurement.

9. All deviations of permit requirements, a description of the probable cause of the deviation, and any corrective actions or preventative measures taken.

G. Records Retention Requirements [40 CFR §49.155(a)(4)(ii)]

1. The Permittee shall retain all records required by this permit for a period of at least 5 years from the date the record was created.

2. Records shall be kept in the vicinity of the facility, such as at the facility, the location that has day-to-day operational control over the facility, or the location that has day-to-day responsibility for compliance of the facility.

H. Reporting Requirements [40 CFR §49.155(a)(5)]

1. Emission compliance reports

(a) Reporting compliance with NO_x emission limit in lb/MMBtu on a 365 boiler operating day rolling average: Beginning no later than 425 boiler operating days after installation of LNB/OFA, the Permittee shall submit written reports by April 1 and October 1 of each year, demonstrating compliance with the NO_x emission limit in condition I.C.2. The reports shall include the 365 boiler operating day rolling average NO_x emissions in lb/MMBtu for each boiler operating day in the reporting period.

(b) Reporting compliance with NO_x emission limits in tons on a rolling 12-month basis:

(i) Beginning fifteen calendar months after permitted operation of LNB/OFA commences, the Permittee shall submit written reports by April 1 and October 1 of each year, demonstrating compliance with the NO_x emission limit in condition I.C.3, to include the rolling 12-month total NO_x emissions at the end of each month in the reporting period.

(ii) Beginning no later than January 1, 2031, the Permittee shall submit written reports by April 1 and October 1 of each year, demonstrating compliance with the NO_x emission limit in condition I.C.4, to include the rolling 12-month total NO_x emissions at the end of each month in the reporting period.

The reports due on April 1 shall cover the six-month period ending on the last day of February before the report is due. The reports due on October 1 shall cover the six-month period ending on the last day of August before the report is due.

In addition to the information required above, all reports shall identify any period during which emissions exceeded the emission limits in this permit, the cause(s) for the excess emissions (if known), and the corrective action taken or preventative measures adopted to eliminate the exceedance.

2. CEMS performance reports

The permittee is required to submit reports of CEMS performance under 40 CFR Part 75. *[Note to Permittee: Reports which satisfy the requirements of this regulation that are submitted under the terms of the facility's Clean Air Act "Air Pollution Control Permit to Operate" (Permit Number V-UO-000004-00.01), shall be considered satisfactory for purposes of this permit.]*

3. Coal Consumption Reports

Beginning in the year 2020 until the End of Service of Unit 1, semiannually by April 1 and October 1 of each year, the Permittee shall submit written reports of accumulated coal consumption in short tons since January 1, 2020 for Unit 1, as measured by Unit 1 coal pulverizer feeder belt scales. The report due on April 1 shall provide the accumulated coal consumption in short tons from January 1, 2020, until the last day of February before the report is due. The report due on October 1 shall provide the accumulated coal consumption in short tons from January 1, 2020, until the last day of August before the report is due.

4. Report submissions

All reports described in conditions I.H.1, I.H.2 and I.H.3 of this permit shall be certified to truth and accuracy by the person primarily responsible for Clean Air Act compliance for the Permittee, and shall be submitted to:

U. S. Environmental Protection Agency, Region 8
Office of Enforcement, Compliance & Environmental Justice
Air Toxics and Technical Enforcement Program, 8ENF-AT
1595 Wynkoop Street
Denver, Colorado 80202

Reports may be submitted electronically to r8airreportenforcement@epa.gov.

5. Deviation Reports

The Permittee shall promptly submit to the EPA a written report of any deviations of permit requirements, a description of the probable cause of such deviations, and any corrective actions or preventative measures taken. A "prompt" deviation report is one that is postmarked or submitted via electronic mail to r8airreportenforcement@epa.gov as follows:

(a) Within 30 days from the discovery of any deviation of the emission limits or operational limits that are left uncorrected for more than 24 hours after discovering the deviation; and

(b) By April 1st for the discovery of a deviation of recordkeeping or other permit conditions during the preceding calendar year that do not affect the Permittee's ability to meet the emission limits.

6. Reports Upon EPA Request

The Permittee shall submit any record or report required by this permit upon EPA request.

II. General Provisions

A. Conditional Approval:

Pursuant to the authority of 40 CFR §49.151, the EPA hereby conditionally grants this permit. This authorization is expressly conditioned as follows:

1. Document Retention and Availability: This permit and any required attachments shall be retained and made available for inspection upon request at the location set forth herein.

2. Permit Application: The Permittee shall abide by all representations, statements of intent and agreements contained in the application submitted by the Permittee. The EPA shall be notified 10 days in advance of any significant deviation from this permit application as well as any plans, specifications, or supporting data furnished.

3. Permit Deviations: The issuance of this permit may be suspended or revoked if the EPA determines that a significant deviation from the permit application, specifications, and supporting data furnished has been or is to be made. If the proposed source is constructed, operated, or modified not in accordance with the terms of this permit, the Permittee will be subject to appropriate enforcement action.

4. Compliance with Permit: The Permittee shall comply with all conditions of this permit, including emission limitations that apply to the affected emissions units at the permitted facility/source. Noncompliance with any permit term or condition is a violation of this permit and may constitute a violation of the CAA and is grounds for enforcement action and for a permit termination or revocation.

5. Fugitive Emissions: The Permittee shall take all reasonable precautions to prevent and/or minimize fugitive emissions during the construction period.

6. National Ambient Air Quality Standards and PSD Increments: The permitted source shall not cause or contribute to a NAAQS violation or a PSD increment violation.

7. Compliance with Federal and Tribal Rules, Regulations, and Orders: Issuance of this permit does not relieve the Permittee of the responsibility to comply fully with all other applicable federal and tribal rules, regulations, and orders now or hereafter in effect.

8. Enforcement: It is not a defense, for the Permittee, in an enforcement action, to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

9. Modifications to Existing Permitted Emissions Units/Limits: For proposed modifications, as defined at 40 CFR §49.152(d), that would increase an emissions unit's allowable emissions of pollutants above its existing permitted annual allowable emissions limit, the Permittee shall first obtain a permit modification pursuant to the MNSR regulations approving the increase. For a proposed modification that is not otherwise subject to review under the PSD or MNSR regulations, such proposed increase in the annual allowable emissions limit shall be approved through an administrative permit revision as provided at 40 CFR §49.159(f).

10. Relaxation of Legally and Practically Enforceable Limits: At such time that a new or modified source within this permitted facility/source or modification of this permitted facility/source becomes a major stationary source or major modification solely by virtue of a relaxation in any legally and practically enforceable limitation which was established after August 7, 1980, on the capacity of the permitted facility/source to otherwise emit a pollutant, such as a restriction on hours of operation, then the requirements of the PSD regulations shall apply to the source or modification as though construction had not yet commenced on the source or modification.

11. Revise, Reopen, Revoke and Reissue, or Terminate for Cause: This permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee, for a permit revision, revocation and reissuance or termination or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. The EPA may reopen this permit for a cause on its own initiative, e.g., if this permit contains a material mistake or the Permittee fails to assure compliance with the applicable requirements.

12. Severability Clause: The provisions of this permit are severable, and in the event of any challenge to any portion of this permit, or if any portion is held invalid, the remaining permit conditions shall remain valid and in force.

13. Property Rights: This permit does not convey any property rights of any sort or any exclusive privilege.

14. Information Requests: The Permittee shall furnish to the EPA, within a reasonable time, any information that the EPA may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating this permit or to determine compliance with this permit. For any such information claimed to be confidential, the Permittee shall also submit a claim of confidentiality in accordance with 40 CFR Part 2, Subpart B.

15. Inspection and Entry: The EPA or its authorized representatives may inspect this permitted facility/source during normal business hours for the purpose of ascertaining compliance with all conditions of this permit. Upon presentation of proper credentials, the Permittee shall allow the EPA or its authorized representative to:

    (a) Enter upon the premises where this permitted facility/source is located or emissions-related activity is conducted, or where records are required to be kept under the conditions of this permit;

    (b) Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of this permit;

(c) Inspect, during normal business hours or while this permitted facility/source is in operation, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or other applicable requirements; and

(e) Record any inspection by use of written, electronic, magnetic and photographic media.

16. Permit Effective Date: This permit is effective immediately upon issuance unless comments resulted in a change in the proposed permit, in which case the permit is effective 30 days after issuance. The Permittee may notify the EPA, in writing, that this permit or a term or condition of it is rejected. Such notice should be made within 30 days of receipt of this permit and should include the reason or reasons for rejection.

17. Permit Transfers: Permit transfers shall be made in accordance with 40 CFR §49.159(f). The Air Program Director shall be notified in writing at the address shown below if the company is sold or changes its name.

U.S. Environmental Protection Agency, Region 8
Office of Partnerships and Regulatory Assistance
Tribal Air Permitting Program, 8P-AR
1595 Wynkoop Street
Denver, Colorado 80202

18. Invalidation of Permit: Unless this permitted source of emissions is an existing source, this permit becomes invalid if construction is not commenced within 18 months after the effective date of this permit, construction is discontinued for 18 months or more, or construction is not completed within a reasonable time. The EPA may extend the 18-month period upon a satisfactory showing that an extension is justified. This provision does not apply to the time period between the construction of the approved phases of a phased construction project. The Permittee shall commence construction of each such phase within 18 months of the projected and approved commencement date.

19. Notification of Startup: The Permittee shall submit a notification of the anticipated date of initial startup of this permitted source to the EPA within 60 days of such date, unless this permitted source of emissions is an existing source.

B. Authorization:

Authorized by the United States Environmental Protection Agency, Region 8

2/11/2016

Carl Daly, Director
Air Program

Date