Owens, Mike

From: Eric Olsen [eolsen@deseretpower.com]
Sent: Wednesday, March 13, 2013 8:25 AM
To: Owens, Mike
Cc: Daly, Carl; Dave Crabtree; Gene Grindle; Ed Thatcher
Subject: Deseret Power, Bonanza Unit 1 - Revisions to Title V Application
Attachments: Appendix D, Page D-1.pdf; Appendix D, Page D-2.pdf; Appendix D, Page D-5.pdf; Appendix H.pdf; Appendix N.pdf; Deseret Bonanza - Unit 1 T5 - list of IEUs (with red lines).pdf; PTE Title V Form.pdf

Mike,

Per your request, I've attached the revisions to the Title V application for Deseret Power's Bonanza Unit 1. Replace the pages in the previous application with the attached pages. Please confirm your receipt of this email and it's attachments. I was not planning on mailing hard copies to your office unless requested.

Please let me know if you have any questions.

Thanks,

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Bonanza Power Plant
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DESCRIPTION OF ALL POTENTIALS TO EMIT (PTE)

The Bonanza Power Plant Unit 1 is a major source for potential emissions of nitrogen oxides (NO_x), sulfur dioxide (SO_2), total particulates (PM), PM-10, volatile organic chemicals (VOC's), hazardous air pollutants (HAP's), and carbon monoxide (CO). Potential emissions of all other regulated pollutants are calculated to be less than the major source threshold definition.

Process data calculation sheets follow to summarize information used to calculate potential emissions. Potential to emit was based on approximately 99.5% of the coal burned with the pollution control equipment in service. In 2011, approximately 66% of the oil burned in the boiler was burned with the pollution control equipment in service.

Bonanza Power Plant Major Source Potential Emissions

NO_x (threshold 1 ton per year)

1. Main Boiler (coal/fuel oil)	9,225.0 TPY	Reference D-2, D-6
2. Main Boiler (natural gas)	2,765.7 TPY	Reference D-8
3. Construction Heaters (propane)	1.5 TPY	Reference D-18

SO_2 (threshold 1 ton per year)

1. Main Boiler (coal/fuel oil)	1,965.9 TPY	Reference D-2, D-6
2. Main Boiler (natural gas)	11.9 TPY	Reference D-8
3. Aux. Boiler (fuel oil)	1.8 TPY	Reference D-10

CO (threshold 1 ton per year)

1. Main Boiler (coal/fuel oil)	501.9 TPY	Reference D-2, D-6
2. Main Boiler (natural gas)	1,659.4 TPY	Reference D-8

PM10 (threshold 1 ton per year)

1. Main Boiler (coal/fuel oil)	573.6 TPY	Reference D-2, D-6
2. Main Boiler (natural gas)	150.1 TPY	Reference D-8

VOC's (threshold 1 ton per year)

1. Main Boiler (coal/fuel oil)	70.2 TPY	Reference D-2, D-6
2. Main Boiler (natural gas)	108.7 TPY	Reference D-8

HAPs (threshold 500 pounds per year)

1. Main Boiler (coal/fuel oil)	67.7 TPY	Reference D-2, D-3, D-6
2. Main Boiler (natural gas)	1.7 TPY	Reference D-8

United States Environmental Protection Agency

OMB No. 2060-0336, Approval Expires 04/30/2012

Federal Operating Permit Program (40 CFR Part 71)

POTENTIAL TO EMIT (PTE)

For each unit with emissions that count towards applicability, list the emissions unit ID and the PTE for the air pollutants listed below and sum them up to show totals for the facility. You may find it helpful to complete form **EMISS** before completing this form. Show other pollutants not listed that are present in major amounts at the facility on attachment in a similar fashion. You may round values to the nearest tenth of a ton. Also report facility totals in section **J** of form **GIS**.

Emissions Unit ID	Regulated Air Pollutants and Pollutants for which the Source is Major (tons/yr)						
	NO_x	VOC	SO_2	PM10	CO	Lead	HAP
Main Boiler (Coal/Fuel Oil)	9225.0	70.2	1965.9	573.6	501.9	0.95	67.7
Auxiliary Boiler (Fuel Oil)	0.60	UN	1.8	0.03	0.13	UN	0.0002
Emergency Diesel Generator (Fuel Oil)	0.62	UN	0.001	0.01	0.16	0.0002	0.0005
Emergency Diesel Fire Pump (Fuel Oil)	0.32	UN	0.02	0.02	0.07	0.00	0.0003
Construction Heaters (Propane)	1.5	UN	0.007	0.08	0.26	UN	UN
EXISTING FACILITY TOTALS	**9228.0**	**70.2**	**~~2347.4~~**	**~~2372.6~~**	**502.5**	**1.0**	**67.7**
Main Boiler* (Natural Gas)	2765.7	108.7	11.9	150.1	1659.4	0.01	1.7
Auxiliary Boiler** (Natural Gas)	0.48	0.02	0.002	0.03	0.29	0.00	0.0003

* Estimated PTE if the main boiler is converted to natural gas.
**Estimated PTE if the auxiliary boiler is converted to natural gas.

INSTRUCTIONS FOR PTE

POTENTIAL TO EMIT

Calculate the total PTE for each air pollutant at the facility for purposes of determining major source applicability.

On each line (row) in the table provided, enter the emissions unit ID and the quantity of each air pollutant identified on the form. If form **EMISS** was prepared previously, simply copy the emission values (or stipulations to major source status) contained on those forms to this form. You may round to the nearest ton.

Applicants may stipulate to major source status for an air pollutant and, thereby, avoid detailed PTE calculations. If a unit emits in major amounts, enter "MU" in the column for that air pollutant. If the facility is a major source for a pollutant but the emissions unit in question does not trigger major source status, enter "MS" in the space provided. If a listed pollutant is emitted at a unit but PTE cannot be calculated based on readily available information, enter "UN" (for "unknown") in the space provided. If the source is a major source for air pollutants not represented by columns on this form, please provide an attachment stipulating major source status or the calculation of the total for that air pollutant. The column for lead is for elemental lead regulated by a NAAQS, while compounds of lead are HAP.

The total line is provided at the bottom of each column to enter the total facility-wide PTE for applicability purposes (or stipulations to major source status) for each air pollutant reported above. Enter these totals, as well as the total PTE and the name of the HAP emitted in the greatest amount, in section J of form **GIS**.

Only include emissions or emissions units on form **PTE** that count toward major source applicability. Some of the emissions units for which form **EMISS** may have been prepared may not have emissions that count towards major source applicability or may have been included in order to calculate fees. In particular, fugitive emissions are not always included in major source applicability determinations for non-HAP. However, for major source determinations for HAP, all fugitive HAP must be included.

END

TABLE H-1

LIST OF FEDERAL AIR QUALITY REQUIREMENTS WHICH ARE APPLICABLE TO THE BONANZA POWER PLANT UNIT 1

1. Periodic reporting of emissions is required. The Bonanza Power Plant Unit 1 will submit the following in meeting this requirement:
   A. Quarterly excess emissions and monitoring systems performance report pursuant to 40 CFR 60.7(c), 40 CFR 60.49(a), 40 CFR 75.64, and 75.65.
   B. Annual emission inventory reports pursuant to for the following pollutants:
      1. SO_2
      2. NO_x
      3. PM_{10}
      4. VOC
      5. H_2SO_4
      6. HAP's
      7. Lead

2. Emission testing is required of all sources at least once every year. This requirement is met by compliance with the annual RATA requirement of 40 CFR 60 Appendix F 5.1, 40 CFR 75 Appendix B 2.3.1, and PSD-UO-0001-2001. These citations specify the particular tests, locations, and test methods that must be employed in meeting these testing requirements.

3. Pursuant to PSD-UO-0001-2001, sulfur emissions as SO_2 at the Bonanza Power Plant Unit 1 are not to exceed 0.0976 lbs/mmBtu heat input over a rolling 12-month average. Compliance shall be based upon CEM data and fuel heat input. Compliance shall be determined by calculating the rolling 12-month average. On the first day of each month, a new 12-month average shall be calculated using data from the previous 12-months.

4. Pursuant to PSD-UO-0001-2001, the Bonanza Power Plant Unit 1 shall achieve at least 90% SO_2 removal efficiency based on a 30-day rolling average.

5. Pursuant to PSD-UO-0001-2001, the Bonanza Power Plant Unit 1 shall not exceed SO_2 emissions of 0.15 lbs/mmBtu heat input averaged over 30 successive boiler operating days.

6. Bonanza Power Plant Unit 1 shall not discharge NO_x to the atmosphere at a rate exceeding 0.55 lbs/mmBtu heat input on a 30-day rolling average value averaged over 30 successive boiler operating days. Compliance shall be based on CEMS data and fuel heat input. (40 CFR 60.44(a) and PSD-UO-0001-2001) Pursuant to 40 CFR 76.8(a) and (b), the Bonanza Power Plant Unit 1 (a Phase II unit with a group 1

boiler, wet bottom, wall fired boiler) has a NO_x emission of 0.46 lbs/mmBtu on an annual basis (40 CFR 76.5(a)(2)).

7. Bonanza Power Plant Unit 1 shall not discharge to the atmosphere particulate matter at a rate exceeding 0.03 lbs/mmBtu heat input as determined by 40 CFR 60 Appendix A, Methods 1-5, 19, and 202 (40 CFR 60.42a(a)(1)). Also, PM emissions shall not exceed 0.0297 lbs/mmBtu according to PSD-UO-0001-2001.

8. Bonanza Power Plant Unit 1 shall not discharge to the atmosphere PM_{10} particulate matter at a rate exceeding 0.03 lbs/mmBtu heat input as determined by 40 CFR 60 Appendix A, Methods 1-5, 19, and 202 (40 CFR 60.42a(a)(1)). Also, PM_{10} emissions shall not exceed 0.0286 lbs/mmBtu according to PSD-UO-0001-2001.

9. Visible emissions from any source shall not exceed 20% opacity. Stack emissions are determined by continuous opacity monitoring equipment. Stack exit opacities cannot exceed 20%, except for one six-minute period per hour of not more than 27%. EPA Method 9 (40 CFR 60 Appendix A) may be used when the opacity CEM equipment is not operating.

10. Coal dust collectors 1 through 5, limestone dust collectors 1 and 2, and the fly ash silo dust collector shall be maintained and operated per manufacturer's recommendations. The collected dust which is returned to the conveyors shall have surfactant sprays in place. The surfactant sprays shall be used during dumping when conveying conditions warrant. Conditions which warrant operation of the sprays are defined as anytime the 20% opacity limit is in jeopardy of being violated. (40 CFR 60.42a(b))

11. Pursuant to PSD-UO-0001-2001, the track hopper for bottom dump coal cars shall have surfactant sprays in place. The surfactant spray shall be used during dumping when conditions warrant. Conditions which warrant operation of the sprays are defined as anytime the 20% opacity limitation (40 CFR 60.42a(b)) is in jeopardy of being violated. The equipment shall be tested at least once per month to ensure that the sprays are always operative, except when weather conditions prohibit. A log of testing and operation shall be kept. The log shall include:
    A. Times of testing.
    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.).

12. Pursuant to PSD-UO-0001-2001, the coal pile shall not exceed 22 acres in total area.

The active reclaim area shall 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 shall be the long-term storage area. Emissions of particulate from the long-term storage area shall 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 shall be available and operative at all times. Conditions which warrant application of the surfactant are defined as any time the 20% opacity limitation (40 CFR 60.42a(b)) is in jeopardy of being violated. To insure that the sprays are always operative, the equipment shall be tested at least once per month. A log of testing and operation shall be kept. The log shall include:

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

13. The owner/operator shall install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS). The owner/operator shall record the output of the system for measuring opacity, SO_2, and NO_x. Procedures to be followed for (1) testing, monitoring, and reporting of excess emissions of opacity, SO_2 and NO_x, and for (2) the purpose of demonstrating compliance with the emission limitations are located in the applicable sections of 40 CFR 60.7, 60.8, 60.11, 60.13, Subpart Da, Appendix A, Methods 1-7, Appendix B, Performance Specifications 1, 2, and 3. These sections shall apply only to the extent they are specifically set forth in this Table H-1 of the Title V Permit Application for the Bonanza Power Plant Unit 1.

14. A quality control/assurance plan/manual for the continuous monitoring system shall be developed and implemented. As a minimum, the quality control program shall have written procedures for each of the following activities pursuant to 40 CFR 60 Appendix F, 40 CFR 75 Appendix B.

A. Installation of CEMS.
B. Calibration of CEMS.
C. Zero and calibration checks and adjustments for CEMS.
D. Preventive maintenance for CEMS (including parts inventory).
E. Data recording and reporting.
F. Program of corrective action for inoperable CEMS.
G. Annual evaluation of CEMS.

APPENDIX H

LIST AND DESCRIPTION OF ALL APPLICABLE REQUIREMENTS

TABLE H-2

REVIEW OF FEDERAL REGULATIONS WHICH MAY APPLY TO THE BONANZA POWER PLANT UNIT 1

40 CFR Part 50 -National Primary and Secondary Ambient Air Quality Standards

National primary and secondary ambient air quality standards are set forth in this part. Part 50 does not contain requirements for stationary sources. This part applies to regulatory authorities therefore the requirements of this section "do not apply" to the Bonanza Power Plant Unit 1.

40 CFR Part 51 - Requirements for Preparation, Adoption, and Submittal of Implementation Plans

This part sets forth requirements for preparation, adoption, and submittal of implementation plans. Part 51 contains administrative requirements that regulatory agencies must follow. This part applies to regulatory authorities and "does not apply" to the Bonanza Power Plant Unit 1.

40 CFR Part 52 - Approval and Promulgation of Implementation Plans

This part sets forth the Administrator's approval and disapproval of State plans and the Administrator's promulgation of such plans or portions thereof. Part 52 contains administrative requirements that regulatory agencies must follow. The regulations contained in this section "do not apply" to the Bonanza Power Plant Unit 1 with the exception of the Prevention of Significant Deterioration program requirements of 40 CFR 52.21 which are contained in paragraphs 4 through 12 of table H-1.

40 CFR Part 53 - Ambient Air Monitoring Reference and Equivalent Methods

These requirements are for ambient air monitor manufacturing and certification. The requirements of this part "do not apply" to the Bonanza Power Plant Unit 1.

40 CFR Part 54 - Prior Notice of Citizen Suits

Section 304 of the Clean Air Act authorizes the commencement of civil actions to enforce the Act or to enforce certain requirements promulgated pursuant to the Act. This part prescribes the procedures governing the giving of notices required by subsection 304(b) of the Act as a prerequisite to the commencement of such actions. The requirements of this part "do not apply" to the Bonanza Power Plant Unit 1.

APPENDIX H

LIST AND DESCRIPTION OF ALL APPLICABLE REQUIREMENTS

40 CFR Part 55 - Outer Continental Shelf Air Regulations

This part applies to all sources located on the outer continental shelf. The Bonanza Power Plant Unit 1 is not an outer continental shelf source; therefore the requirements of this part "do not apply".

40 CFR Part 56 - Regional Consistency

The purpose of this part is to assure that fair and uniform application of policies and procedures is employed in implementing and enforcing the Clean Air Act. This part applies to regulatory agencies and the requirements "do not apply" to the Bonanza Power Plant Unit 1.

40 CFR Part 57 - Primary Nonferrous Smelter Orders

This source is not a nonferrous smelter. The requirements of this part "do not apply" to the Bonanza Power Plant Unit 1.

40 CFR Part 58 - Ambient Air Quality Surveillance

This part contains criteria and requirements for ambient air quality monitoring and requirements for reporting air quality data and information. This part applies to State or local agencies operating a monitoring network. It also applies to owners or operators of proposed sources required to monitor ambient air quality. The requirements of this part "do not apply" to the Bonanza Power Plant Unit 1. PSD-UO-0001-2001 does not contain requirements requiring ambient air quality monitoring.

40 CFR Part 59 - National Volatile Organic Compound Emission Standards for Consumer and Commercial Products

This part applies to the coating industry. The requirements of this part "do not apply" to the Bonanza Power Plant Unit 1.

40 CFR Part 60 - Standards of Performance for New Stationary Sources (NSPS)

This part applies to the owner or operator of any stationary source which contains an affected facility for which the construction or modification is commenced after the date of publication in this part of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility. ~~Only the requirements of Subpart Da specifically set forth in paragraphs 3 through 12 and 23 through 25 of Table H-1 and Subpart Y are applicable.~~ The requirements of all other subparts of this part "do not apply" to the Bonanza Power Plant Unit 1. The requirements contained in previous approval orders issued by the Utah DAQ and PSD permits issued by EPA which have been superseded by the approval order PSD-UO-0001-2001 are not applicable. These approval orders and permits include those issued April 29, 1981; July 11, 1984; July 2, 1987; June 14, 1995; and March 16, 1998.

APPENDIX H

LIST AND DESCRIPTION OF ALL APPLICABLE REQUIREMENTS

40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants (NESHAP)

This part applies to the owner or operator of any stationary source for which a standard is prescribed under this part. Specific requirements were reviewed during the recent "NOI" process which resulted in a modified approval order dated June 14, 1995 and a determination was made that the requirements of this part "do not apply" to the Bonanza Power Plant Unit 1.

40 CFR Part 62 - Approval and Promulgation of State Plans for Designated Facilities and Pollutants

This part sets forth the Administrator's approval and disapproval of State plans for control of designated pollutants and facilities. The requirements of this part "do not apply" to the Bonanza Power Plant Unit 1.

40 CFR Part 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories

This part contains regulations governing compliance extensions for early reductions of hazardous air pollutants and MACT standards for specific source categories. A recently promulgated EPA rule regulating hazardous air pollutants from electric utility generating units will apply to the Bonanza Power Plant Unit 1. The Title V permit application will be updated to reflect the effect of Subpart UUUUU of this regulation prior to the date upon which that Subpart will become applicable to the Bonanza Power Plant Unit 1. Subpart ZZZZ of this part "does not apply" to the Bonanza Power Plant Unit 1's Emergency Diesel Generator pursuant to 40 CFR 63.6600(c) and 40 CFR 63.6590(b), except for the initial notification. Subpart ZZZZ of this part "does apply" to the Bonanza Power Plant Unit 1's Emergency Diesel Fire Pump and Bonanza will comply with Table 2c of this subpart.

40 CFR Part 64 – Compliance Assurance Monitoring

Part 64 contains regulations governing compliance monitoring for certain emission sources. This part "does not apply" to the Bonanza Power Plant Unit 1 because it is exempted from this Part under Section 64.2 (b)(iii) and 64.2 (b)(vi). The plant is regulated by continuous emissions monitoring provisions of the EPA approval Order PSD-OU-001-2001: 00, 40 CFR 60, Subpart Da, and 40 CFR 75.

40 CFR Part 65 - Delayed Compliance Orders

Section 113(d) of the Clean Air Act authorizes the Administrator to issue to certain sources delayed compliance orders permitting a delay in compliance with applicable regulations contained in a state implementation plan. This part sets forth the procedures for issuing such orders. The requirements of this part "do not apply" to the Bonanza Power Plant Unit 1.

APPENDIX H

LIST AND DESCRIPTION OF ALL APPLICABLE REQUIREMENTS

40 CFR Part 66 - Assessment and Collection of Noncompliance Penalties by EPA

This part sets forth the procedures by which EPA will administer the noncompliance penalty provisions of Section 120 of the Clean Air Act. Duties of the source owner or operator upon receipt of a notice of noncompliance penalties are also described. This part sets forth administrative requirements and does not contain any requirements applicable to the Bonanza Power Plant Unit 1. The requirements of this part "do not apply" to the Bonanza Power Plant Unit 1.

40 CFR Part 67 - EPA Approval of State Noncompliance Penalty Program

This part describes the standards and procedures under which EPA will approve State programs for administering the noncompliance penalty program under Section 120 of the Clean Air Act and will evaluate actions taken by states with approved programs. The requirements of this part "do not apply" to the Bonanza Power Plant Unit 1, although the administrative requirements may apply to EPA in dealing with non-compliance at the plant.

40 CFR Part 68 - Chemical Accident Prevention Provisions

This part sets forth the list of regulated substances and thresholds, the petition process for adding or deleting substances to the list of regulated substances, the requirements for owners or operators of stationary sources concerning the prevention of accidental releases, and the State accidental release prevention programs approved under section 112(r). The requirements of this part "do not apply" to the Bonanza Power Plant Unit 1.

40 CFR Part 69 - Special Exemptions from Requirements of the Clean Air Act

This part lists special exemptions from requirements of the Clean Air Act. This source has no such exemptions, therefore this part "does not apply" to the Bonanza Power Plant Unit 1.

40 CFR Part 70 - State Operating Permit Programs

This part defines the minimum elements required by the Act for State operating permit programs and the corresponding standards and procedures by which the Administrator will approve, oversee, and withdraw approval of State operating permit programs. This part "does not" contain requirements which are applicable to the Bonanza Power Plant Unit 1.

40 CFR Part 71 - Federal Operating Permit Programs

This part contains elements of an operating permit program administered by the EPA Administrator. The federal operating permit program for "Indian Country" is approved and "does apply" to the Bonanza Power Plant Unit 1.

40 CFR Part 72 - Permits Regulation

The purpose of this part is to establish certain general provisions and the operating permit program requirements for affected sources and affected units under the Acid Rain Program. This part "does apply" to the Bonanza Power Plant Unit 1.

APPENDIX H

LIST AND DESCRIPTION OF ALL APPLICABLE REQUIREMENTS

40 CFR Part 73 - Sulfur Dioxide Allowance System

The purpose of this part is to establish the requirements and procedures for SO_2 allowances including allocation, tracking, holding, transfers, deductions, and sales. Only Subparts A through E of this part apply to the Bonanza Power Plant Unit 1.

40 CFR Part 74 - Sulfur Dioxide Opt-ins

The purpose of this part is to establish the requirements and procedures for the election of a combustion or process source that emits sulfur dioxide to become an affected unit under the Acid Rain Program. Since the Bonanza Power Plant Unit 1 is subject to Part 72 and 73, it is not subject to Part 74.

40 CFR Part 75 - Continuous Emission Monitoring

The provisions of this part are applicable to each affected unit subject to acid rain emission limitations or reduction requirements for SO_2 and NO_x. Unless the requirements are listed in paragraphs 23, 24, and 25 of Table H-1 of this permit application, the requirements of this part are "not applicable" to the Bonanza Power Plant Unit 1.

40 CFR Part 76 - Acid Rain Nitrogen Oxides Emission Reduction Program

This part was promulgated in order to reduce the emission of NO_x from coal fired power plants. In 1995, the Bonanza Power Plant Unit 1 decided to opt-in under the early election provisions under this part. The Bonanza Power Plant Unit 1 is still covered under the emission limits contained in Part 76.7. Only Section 76.7 of this part "does apply" to the Bonanza Power Plant Unit 1.

40 CFR Part 77 - Excess Emissions

This part sets forth the excess emissions offset planning and offset penalty requirements under section 411 of the Clean Air Act. These requirements shall apply to the owners and operators and, to the extent applicable, the designated representative of each affected unit and affected source under the Acid Rain Program. This part would only apply to the Bonanza Power Plant Unit 1 in the event of excess emissions.

40 CFR Part 78 - Appeal Procedures

This part governs the appeals of any final decision of the Administrator under the parts listed in this rule. This part would only apply to the Bonanza Power Plant Unit 1 in the event of an appeal.

40 CFR Part 79 - Registration of Fuels and Fuel Additives

The regulations of this part apply to the registration of fuels and fuel additives. This source does not manufacture fuels. Therefore, the requirements of this part "do not apply" to the Bonanza Power Plant Unit 1.

APPENDIX H

LIST AND DESCRIPTION OF ALL APPLICABLE REQUIREMENTS

40 CFR Part 80 - Regulation of Fuels and Fuel Additives

This part prescribes regulations for the control and/or prohibition of fuels and additives for use in motor vehicles and motor vehicle engines. Therefore, the requirements of this part "do not apply" to the Bonanza Power Plant Unit 1.

40 CFR Part 81 - Designation of Areas for Air Quality Planning Purposes

Air quality control region designations, attainment status designations, and mandatory Class I federal areas where visibility is an important value are listed in this part. The Bonanza Power Plant Unit 1 is not located in any area so designated. Therefore, the requirements of this part "are not applicable" to the Bonanza Power Plant Unit 1.

40 CFR Part 82 - Protection of Stratospheric Ozone

Subpart F of this part contains requirements applicable to the Bonanza Power Plant Unit 1. The requirements of the other subparts "do not apply" to the Bonanza Power Plant Unit 1.

40 CFR Part 85 - Control of Air Pollution from Motor Vehicles and Motor Vehicle Engines

This part is not applicable to stationary sources and therefore "does not apply" to the Bonanza Power Plant Unit 1.

40 CFR Part 86 - Control of Air Pollution from New and In-Use Motor Vehicle and New and In-Use Motor Vehicle Engines: Certification and Test Procedures

This part is not applicable to stationary sources and therefore "does not apply" to the Bonanza Power Plant Unit 1.

40 CFR Part 87- Control of Air Pollution from Aircraft and Aircraft Engines

This part is not applicable to stationary sources and therefore "does not apply" to the Bonanza Power Plant Unit 1.

40 CFR Part 88 - Clean Fuel Vehicles

This part is not applicable to stationary sources and therefore "does not apply" to the Bonanza Power Plant Unit 1.

40 CFR Part 89 - Control of Emissions from New and In-use Nonroad Compression-Ignition Engines

This part applies to the manufacture of all compression-ignition non-road engines except those specified in the part. The requirements of this part "are not applicable" to the Bonanza Power Plant Unit 1.

APPENDIX H

LIST AND DESCRIPTION OF ALL APPLICABLE REQUIREMENTS

40 CFR Part 90 – Control of Emissions from Nonroad Spark-Ignition Engines at or Below 19 Kilowatts

This part applies to the manufacture of all new non-road spark-ignition engines and vehicles with gross power output at or below 19 kilowatts (kW) used for any purpose, unless excluded under paragraph (d) of this section. The requirements of this part "are not applicable" to the Bonanza Power Plant Unit 1.

40 CFR Part 91 – Control of Emissions from Marine Spark-Ignition Engines

This part and all its subparts apply to the manufacture of all marine spark-ignition engines used to propel marine vessels as defined in the General Provisions of the United States Code, 1 U.S.C.3 (1992), unless otherwise indicated. The requirements of this part "are not applicable" to the Bonanza Power Plant Unit 1.

40 CFR Part 92 – Control of Air Pollution From Locomotives and Locomotive Engines

This part and all its subparts apply to the manufacturers, remanufacturers, owners, and operators of locomotive engines. The Bonanza Power Plant Unit 1 does not own a locomotive. The requirements of this part "are not applicable" to the Bonanza Power Plant Unit 1.

40 CFR Part 93 - Determining Conformity of Federal Actions to State or Federal Implementation Plans

The purpose of this part is to implement section 176(c) of the Act. This part "does not apply" to the Bonanza Power Plant Unit 1.

40 CFR Part 94 - Control of Emissions from Marine Compression-Ignition Engines

The provisions of this part apply to manufacturers (including post-manufacture marinizers and dressers), rebuilders, owners and operators of Marine Compression-Ignition Engines manufactured on or after January 1, 2004. This part "does not apply" to the Bonanza Power Plant Unit 1.

40 CFR Part 95 - Mandatory Patent Licenses

The provisions of this part apply to sources which are required to comply with an emission limit in the Clean Air Act, but are unable to acquire a license for the necessary technology due to an issue(s) with the patent holder. This part would only apply to the Bonanza Power Plant Unit 1 if such a patent event occurred.

APPENDIX H

LIST AND DESCRIPTION OF ALL APPLICABLE REQUIREMENTS

40 CFR Part 96 - NO_x Budget Trading Program and CAIR NO_x and SO_2 Trading Programs for State Implementation Plans

This part establishes general provisions and the applicability, permitting, allowance, excess emissions, monitoring, and opt-in provisions for the NO_x Budget Trading Program for State implementation plans as a means of mitigating the interstate transport of ozone and nitrogen oxides, an ozone precursor. The Bonanza Power Plant Unit 1 is not subject to any trading programs under this part. This part "does not apply" to the Bonanza Power Plant Unit 1.

40 CFR Part 97 - Federal NO_x Budget Trading Program and CAIR NO_x and SO_2 Trading Programs

This part establishes general provisions and the applicability, permitting, allowance, excess emissions, monitoring, and opt-in provisions for the federal NO_x Budget Trading Program, under section 126 of the CAA and 52.34 of this chapter. The Bonanza Power Plant Unit 1 is not subject to any trading programs under this part. This part "does not apply" to the Bonanza Power Plant Unit 1.

40 CFR Part 98 - Mandatory Greenhouse Gas Reporting

This part establishes mandatory greenhouse gas (GHG) reporting requirements for owners and operators of certain facilities that directly emit GHG as well as for certain suppliers. Only Subpart D of this part applies to the Bonanza Power Plant Unit 1.

APPENDIX H

LIST AND DESCRIPTION OF ALL APPLICABLE REQUIREMENTS

TABLE H-3

PERMIT SHIELD

For the existing sources at the Bonanza Power Plant Unit 1 described in this application, compliance with the requirements of this permit is deemed compliance with the following laws, regulations, and legal requirements that have been specifically identified and set forth in Table H-1 of the permit. Regulations contained in Table H-2 in this application have been determined to be applicable, partially applicable, or not applicable to the Bonanza Power Plant Unit 1. The parts listed in Table H-2 are not applicable to this permit application. Refer to 40 CFR Parts 50 through 82 and 85 through 98. Deseret is requesting a permit shield for the Bonanza Power Plant Unit 1.

DESERET GENERATION AND TRANSMISSION COOPERATIVE

PLANT. Bonanza, Unit 1
SOURCE ID. Main Boiler
FUEL. Bituminous Coal (p. 1 of 4)

PROCESS DATA

YEAR 2012 / SCC CODE	AVERAGE OUTPUT (MW) (est.)	AVERAGE HEAT INPUT (MMBTU/HR)	CALCULATED HEATRATE (Btu/kWh)	AVERAGE PROCESS RATE	SCC UNITS	AVERAGE RATE (SCC UNIT/HR)	SULFUR CONTENT (% BY WEIGHT)	ASH CONTENT (% BY WEIGHT)	FUEL HEAT CONTENT (MMBTU/SCC UNIT)
10100201	471	4.578	9,720	2,005,164	TON	229	1.0	9.0	20

ESTIMATED EMISSIONS

POLLUTANT	CONTROL EQUIPMENT PRIMARY	CONTROL EQUIPMENT SECONDARY	CONTROL EFFICIENCY (%)	EMISSION FACTOR (LBS/SCC UNIT)	ASH/SULFUR FLAG	EMISSIONS ESTIMATION METHOD			POTENTIAL CONTROLLED EMISSIONS (TONS/YEAR)
CO			0.00	0.50		AP-42 Table 1.1-3			501.29
CO2			0.00	5,510		AP-42 Table 1.1-20			5,524,227
VOC			0.00	0.07		Section 1.1, Sup E AP-42			70.18
NOx	Low NOx Burners		0.00	Controlled 9.20		Emission Limit (0.46 lbs/mmBtu)			9,223.75
SO2	Scrubber		Calc on 2.0 #/mmBtu inlet 95.12	40.00	S	Emission Limit 0.0976 lbs/mmBTU			1,957.04
PM	Baghouse	Scrubber	(CALCULATED) 99.67	180.00	A	Emission Limit (0.0297 lbs/mmBtu)			595.53
PM10	Baghouse	Scrubber	(CALCULATED) 99.68	180.00	A	Emission Limit (0.0286lbs/mmBtu)			573.48
HCL	Scrubber		97.00	1.20		AP-42			36.09
HF	Scrubber		94.00	0.23		Coal Analysis (11/1998) lbs/ton			13.84
Lead	Baghouse	Scrubber	(AIR TOXICS) 95.00	(8.0E-04 #/mmBtu) 1.60E-02		Coal Analysis (11/1998) 8 PPM			8.02E-01
Arsenic	Scrubber	Baghouse	(AIR TOXICS) 94.30	(5.38E-04 #/mmBtu) 1.08E-02		WebFIRE 6.22			6.15E-01
Beryllium	Baghouse		(AIR TOXICS) 99.30	(8.1E-05 #/mmBtu) 1.62E-03		WebFIRE 6.22			1.14E-02
Cadmium	Baghouse		(STACK TEST) 99.60	(4.4E-05 #/mmBtu) 8.60E-04		WebFIRE 6.22			1.76E-03
Chromium	Scrubber	Baghouse	(AIR TOXICS) 71.50	(0.0007 #/mmBtu) 1.40E-02		Coal Analysis (11/1998) 7 PPM			4.00
Mercury	Scrubber		(AIR TOXICS) 25.00	(1.6E-05 #/mmBtu) 3.20E-04		WebFIRE 6.22			2.41E-01
Manganese	Baghouse		(AIR TOXICS) 78.50	(1.1E-03 #/mmBtu) 2.20E-02		Coal Analysis (11/1998) 11 PPM			4.74
Nickel	Scrubber		(AIR TOXICS) 72.70	(1.0E-04 #/mmBtu) 2.00E-03		Coal Analysis (11/1998) <1.0 PPM			5.47E-01
Selenium	Baghouse		(XATEF1) 92.00	(24.34 lbs/10^12 Btu) 4.87E-04		AIR TOXICS (for bitum coal)			3.90E-02
POM	Baghouse		Unknown; factor w/ control	(18.5 lbs/10^12 Btu) 3.70E-04		AIR TOXICS (for bitum coal)			3.71E-01
Formaldehyde	Baghouse		0.00	(2.4E-04 lb/ton) 2.40E-04		AP-42 Table 1.1-14			2.41E-01
Naphthalene	Baghouse		0.00	(1.3E-05 lb/ton) 1.30E-05		AP-42 Table 1.1-13			1.30E-02

ACID RAIN PROVISIONS

The Bonanza Power Plant Unit 1 is subject to EPA Title IV Acid Rain Provisions. These provisions require the plant to have sufficient SO_2 annual allowances contained in 40 CFR 73 and meet the NO_x provisions contained in 40 CFR 76. Bonanza's annual SO_2 allowance allotment exceeds the plant's SO_2 annual potential to emit (PTE) and 40 CFR 76.7(a)(2) requires Bonanza to emit no more than 0.46 lbs/mmBtu of NO_x on an annual average. Bonanza also complies with 40 CFR 75, Continuous Emission Monitoring.

DESERET GENERATION AND TRANSMISSION COOPERATIVE

PLANT: Bonanza, Unit 1
SOURCE ID: Main Boiler
FUEL: Bituminous Coal (p. 4 of 4)

NOTES:

POTENTIAL CONTROLLED EMISSIONS

1) As referenced in the State of Utah Approval Order DAQE-186-98 dated March 16, 1998 and the PSD permit PSD-UO-0001-2001:00 dated February 2, 2001, potential emissions are calculated based on average heat input of about 4,576 mmBtu/hr and federally enforceable limits for SO2 of 0.0976 lbs/mmBtu and for PM10 of 0.0286 lbs/mmBtu. A design higher heating value of approximately 10,000 Btu/lb and an ash content of approximately 9% was used for the coal.
2) Potential NOx emissions based on a Part 76 limit of 0.46 lbs/MMBTU (40 CFR 76.7).
3) Potential SO2, PM, and PM10 emissions based on current permit limits of 0.0976 lbs/mmBtu, 0.0297 lbs/mmBtu, and 0.0286 bs/mmBtu, respectively under EPA approval order PSD-UO-0001-2001:00.
4) Potential emissions of all other criteria pollutants and HAPs based on emissions factors published in AP-42, AIRS, AIR TOXICS, and WebFIRE, as noted for each pollutant. Where a range of emissions factors was given in literature reviewed, the most conservative factor was generally used.
5) The average gross load of 471 MW is based on the average heat input from the PSD permit. The gross megawatt capability for the Bonanza Power Plant Unit 1 is estimated at 500 MW.

CONTROL EQUIPMENT AND ASSOCIATED EFFICIENCIES

6) Emissions control equipment consists of an baghouse, scrubber, and low-NOx burners.
7) Baghouse control efficiencies for PM and PM10 where calculated based on PSD limits.
8) Baghouse control efficiencies for metals were calculated based on comparing average uncontrolled and average baghouse controlled emissions data published in AIR TOXICS and WebFIRE. Where a range of emission factors was given in literature reviewed, the most conservative factors for emissions were used.
9) Control efficiencies for the remaining non-metals HAPs are unknown.
10) PTE for NOx was calculated on the permitted emission rate.

Table 3. Insignificant Activities/Emitting Units

Activity/ Emission Unit ID	Description	Applicable Permit Condition
1-2	AUXILIARY BOILER * (184 MMBtu/hr, pre-1984, fired on fuel oil or natural gas)	none
1-3	EMERGENCY DIESEL GENERATOR * (750 KW, fired on fuel oil)	none
1-4	EMERGENCY DIESEL FIRE PUMP * (2.83 MMBtu/hr, fired on fuel oil)	none
1 5	CONSTRUCTION HEATERS * Propane (12.81 MMBtu/hr each, fired on ~~natural gas~~)	none
DC-1	COAL TERMINAL BUILDING (coal distribution facility connecting conveyors 1, 2 & 8, equipped with fabric filter dust collector)	II.B 1.a, II.B.2
DC-2	COAL SILO (silo for storing and handling coal, equipped with baghouse)	II.B 1.a, II B.2
DC-3	COAL SILO RECLAIM/TRANSFER (coal handling area, equipped with fabric filter dust collector)	II.B 1.a, II.B.2
DC-4	COAL CRUSHING BUILDING (receives coal from silo and reclaim, equipped with fabric filter dust collector)	II.B.1.a, II.B.2
DC-5	COAL BUNKERS (coal storage bunkers that feed pulverizers; equipped with fabric filter dust collector)	II.B 1.a, II B.2 II.B 1.a, II.B.2
LDC-1	LIMESTONE RECEIVING HOPPER (hopper to transfer limestone to the limestone conveyor; equipped with fabric filter dust collector)	II.B 1.a
LDC-2	LIMESTONE STORAGE BUNKERS (limestone storage bunkers for feeding scrubber; equipped with fabric filter dust collector)	II.B.1.a
none	FLY ASH SILO * (stores fly ash prior to loading on landfill conveyor; equipped with fabric filter dust collector)	none

Activity/ Emission Unit ID	Description	Applicable Permit Condition
none	COAL TRACK HOPPER FOR BOTTOM-DUMP COAL (below-track coal car unloading hopper; equipped with water sprays)	II.B 1.b, II B.2
none	COAL PILE (coal storage pile, maximum 22 acres, consisting of a long-term storage area and active/reclaim area (maximum 11 acres); surfactant sealant used as needed for dust control at long-term storage area)	II.B 1.c, II.B 1.f
none	COAL CONVEYORS 1, 2 & 8 (all covered; conveyors 1 and 8 equipped with water sprays)	II.B 1.a, II.B.2
none	COAL CONVEYORS 3a, 3b, 4a & 4b (covered; coal transfer from storage to plant)	II B.1.a, II.B.2
none	LIMESTONE LONG-TERM STORAGE PILE (surfactant sealant used as needed for dust control)	II.B 1.d, II.B.1.f
none	LIMESTONE CONVEYOR (covered, transfers limestone from storage area to scrubber)	II.B.1.a
none	ASH/SLUDGE LANDFILL CONVEYOR * (covered conveyor from sludge building to landfill, includes "grasshopper" conveyor system, consisting of four uncovered conveyors, at end of regular sludge conveyor system)	none
none	ASH/SLUDGE LANDFILL DISCHARGE AREA (active discharge area for ash and sludge; includes three portable non-covered conveyors; water sprays as necessary for dust control)	II.B.1.e
none	ASH/SLUDGE LANDFILL * (stabilized and inactive)	none
none	ACCESS/HAUL ROAD * (partially paved road from boiler building to landfill, water sprays or chemical treatment as necessary for dust control)	II.B 1.g, II.B.1.h

Activity/ Emission Unit ID	Description	Applicable Permit Condition
none	PERIMETER ROAD (unpaved road around the perimeter fence; water sprays or chemical treatment as necessary for dust control)	II.B 1.g, II B.1.h
Tank #1, west	#2 DIESEL FUEL OIL STORAGE TANK #1 * (~~280,000~~ gallon capacity) 288,000	none
Tank #2, east	#2 DIESEL FUEL OIL STORAGE TANK #2 * (~~280,000~~ gallon capacity) 288,000	none
none	Above ~~UNDERGROUND~~ GASOLINE STORAGE TANK * (~~4,000~~ gallon capacity) 10,000	none
none	Above ~~UNDERGROUND~~ DIESEL STORAGE TANK * (~~4,000~~ gallon capacity) 20,000	none
none	VEHICLE REFUELING EQUIPMENT FOR DIESEL AND GASOLINE *	none
none	TRUCK-MOUNTED VACUUM SYSTEM ("GUZZLER") * (mobile truck mounted vacuum equipped with particulate filter to clean up spilled material such as ash)	none
none	MISCELLANEOUS ABRASIVE BLASTING * (abrasive blasting of parts and equipment inside the boiler baghouse)	none
none	WATER TREATMENT AND ASSOCIATED CHEMICAL STORAGE * (areas for equipment and chemicals to treat water used on site)	none
none	Bottom Ash Landfill	none

* no applicable requirements.