

Exhibit 1

**Statement of Basis
(pages i-10)**

Air Pollution Control
40 CFR 52.21(i)
Prevention of Significant Deterioration Permit to Construct
Final Statement of Basis
for Permit No. PSD-OU-0002-04.00
August 30, 2007

Deseret Power Electric Cooperative
Bonanza Power Plant, Waste Coal Fired Unit
Uintah & Ouray Reservation
Uintah County, Utah

In accordance with requirements at 40 CFR 124.7, the Region 8 office of the U.S. Environmental Protection Agency (EPA) has prepared this Statement of Basis describing the issuance of a Prevention of Significant Deterioration (PSD) permit to Deseret Power Electric Cooperative. This Statement of Basis discusses the background and analysis for the PSD permit for construction of a new Waste Coal Fired Unit (WCFU) at Deseret Power's Bonanza power plant, and presents information that is germane to this permit action.

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I. Introduction

Deseret Power Electric Cooperative ("Deseret Power") has applied to the Region 8 office of the U.S. Environmental Protection Agency (EPA) for a Federal Clean Air Act permit to construct a waste-coal-fired electric utility generating unit at its existing Bonanza power plant, near Bonanza, Utah. The request for a permit was made under regulations promulgated pursuant to the Clean Air Act, titled "Prevention of Significant Deterioration" of air quality (PSD), in Title 40, section 52.21, of the Code of Federal Regulations (CFR).

The Bonanza plant is within the exterior boundaries of the Uintah and Ouray Indian Reservation. Since there is no EPA-approved tribal permitting program on the Reservation under the Clean Air Act, the Bonanza plant is under Federal permitting jurisdiction. The existing plant is a major stationary source as defined in Federal PSD rules at 40 CFR 52.21. The new unit will constitute a "major modification" to the existing plant, as defined in PSD rules. The specific pollutants for which the modification will be major are listed in section V.B and again in section VI.C of this Statement of Basis.

The proposed new Waste Coal Fired Unit (WCFU) will have a rated heat input capacity not to exceed 1,445 million British thermal units per hour (MMBtu/hr) and a rated electrical output capacity not to exceed 110 megawatts. The WCFU will consist of a single Circulating Fluidized Bed (CFB) boiler and associated equipment. Proposed emission controls for the CFB boiler, for satisfying PSD requirements for Best Available Control Technology (BACT), will consist of:

- a fabric filter baghouse for control of filterable particulate matter (PM), including particulate matter with an aerodynamic diameter smaller than 10 microns (PM₁₀),
- limestone injection and a dry scrubber (spray dry absorber) for sulfur dioxide (SO₂) control and sulfuric acid (H₂SO₄) control,
- Selective Non-Catalytic Reduction (SNCR) for nitrogen oxides (NO_x) control,
- a combustion control system for carbon monoxide (CO) control, and
- a combination of limestone injection, dry scrubber and fabric filter baghouse for control of condensible PM.

The CFB boiler will be designed to be fired on waste coal obtained from Deseret's existing Deserado mine about 35 miles away. The waste coal is an unavoidable byproduct of the coal washing process used to supply washed coal to the existing 500-megawatt Unit 1 at Bonanza plant. If waste coal is not available due to emergencies, run-of-mine (ROM) coal or washed coal from the mine will be utilized in the WCFU. Deseret Power has also requested operating flexibility, in the EPA permit, to blend ROM coal with the waste coal, at up to a 50/50 ratio by

weight, as needed at any time, such as in the event of operational difficulties arising from use of waste coal as sole fuel, or in the event of unexpected difficulties in meeting BACT emission limits.

The existing Bonanza Unit 1 was constructed under a Federal PSD permit issued in February of 1981. The permit was updated and re-issued in February of 2001. The permit for the new WCFU will be issued as a separate PSD permit.

A more detailed description of the waste coal fired project may be found in section IV below. A description of emission control options considered and determination of emission limits may be found in section VI. A description of the air quality impact analysis may be found in section VIII.

II. Authority

40 CFR 52.21, Prevention of Significant Deterioration (PSD): Requirements under §52.21 to obtain a Federal PSD preconstruction permit apply to construction of new major stationary sources ("major" as defined in §52.21), as well as to major modifications of existing major stationary sources (A major modification as defined in §52.21). EPA is charged with direct implementation of these provisions where there is no approved State or Tribal implementation plan for implementation of the PSD regulations. Pursuant to section 301(d)(4) of the Clean Air Act (42 U.S.C. § 7601(d)), EPA is authorized to implement the PSD regulations at §52.21 in Indian country. The Bonanza power plant, where this proposed project will be located, is 35 miles southeast of Vernal, Utah, near Bonanza, Utah in Uintah County, and within the exterior boundaries of the Uintah and Ouray Indian Reservation. As stated in section I above, the existing plant is a major stationary source and the proposed project will be a major modification.

40 CFR 124, Procedures for Decision Making: Federal administrative permitting standards at 40 CFR part 124, *Procedures for Decision Making*, provide requirements for several environmental permit programs, including the PSD program. General administrative procedures are codified in Part 124, including those that relate to the PSD program. Federal PSD permit actions, such as issuing, modifying, reissuing, or terminating permits, are addressed in 40 CFR 124, Subpart A, *General Program Requirements*. Part 124 also includes requirements that pertain to draft permits, Statement of Basis, Fact Sheets, public notices of permit actions, public comment periods, handling of public comments and requests for public hearings, handling of public hearings, and appeals of PSD permit decisions. Requirements in Part 124 that provide for public review and involvement in this proposed action will be used by EPA in its decision making.

In particular, the administrative requirements of 40 CFR § 124, Subpart C, *Specific Procedures Applicable to PSD Permits*, will be followed. Specifically, whenever a major source's air emissions might affect a Class I area, 40 CFR § 124.42, *Additional Procedures for PSD Permits Affecting Class I Areas*, states that the Regional Administrator must provide notice of receipt of a permit application to the Federal Land Manager and the Federal official charged with direct responsibility for management of lands within such area. A copy of the permit application for this project was provided by the permit applicant directly to the National Park Service and the U.S. Forest Service, at the same time the application was submitted to the EPA. A copy of the permit application was also provided by the permit applicant to the Ute Indian Tribe.

III. Public Notice, Comment, Hearings and Appeals

Public notice for the draft PSD permit was published in late June, 2006, in the Salt Lake Tribune (Salt Lake City, UT), the Vernal Express (Vernal, UT), the Uintah Basin Standard (Roosevelt, UT), the Grand Junction Sentinel (Grand Junction, CO) and the Rio Blanco Herald Times (Meeker/ Rangely, CO). The public comment period extended until July 29, 2006.

During the public comment period, States, Tribes, local governmental agencies, and the public were given the opportunity to review a copy of the permit application, analysis, draft permit prepared by EPA, draft Statement of Basis for the permit, and permit-related correspondence. Copies of these documents were available for review at the US EPA Region 8, Air and Radiation Program Office, in Denver, Colorado, as well as at Uintah County Clerk's Office in Vernal, Utah, as well as at the Ute Indian Tribe, Environmental Programs Office, in Fort Duchesne, Utah. A copy of the draft permit and draft Statement of Basis was also available during public comment period on EPA website at: <http://www.epa.gov/region8/air>, under the heading "Topics of Interest."

In accordance with 40 CFR 52.21(q), *Public participation*, any interested person was afforded the opportunity to submit written comments on the draft permit during the public comment period and to request a public hearing.

In accordance with 40 CFR 124.13, *Obligation to raise issues and provide information during the public comment period*, anyone, including the permit applicant, who believes any condition of the draft permit is inappropriate, or that EPA's tentative decision to prepare a draft permit for the WCFU is inappropriate, must raise all reasonable ascertainable issues and submit all arguments supporting the commenter's position, by the close of the public comment period. Any supporting materials submitted must be included in full and may not be incorporated by reference, unless the material has been already submitted as part of the administrative record in the same proceeding or consists of state or federal statutes and regulations, EPA documents of general applicability, or other generally available reference material. An extension of the 30-day public comment period may be granted if the request for an extension adequately explains why more time is needed to prepare comments.

During the public comment period, one comment letter and one comment e-mail were received by EPA that expressed concerns with the draft permit and/or Statement of Basis. The comment letter, received on July 28, 2006, was from a group of seven environmental organizations: Western Resource Advocates, Environmental Defense, Utah Chapter of the Sierra Club, Southern Utah Wilderness Alliance, Western Colorado Congress, Wasatch Clean Air Coalition, and HEAL Utah. The comment e-mail, received on July 26, 2006, was from Kathy Van Dame, representing the Wasatch Clean Air Coalition.

Comment letters supporting the proposed WCFU project were received from the mayors of seven Utah municipalities: Salem City, Spanish Fork, Provo, Manti City, St. George, Nephi

and Levan. Since these letters did not express any concerns with the draft PSD permit, EPA does not consider a response necessary.

A copy of the final permit and final Statement of Basis are available on the above-mentioned EPA website, as well as public comments received on the draft permit package, EPA's responses to public comments, and permit-related correspondence extending from the date that the draft permit was issued until the date that the final permit was issued.

In accordance with 40 CFR 124.15, *Issuance and Effective Date of Permit*, the permit shall become effective immediately upon issuance as a final permit, if no comments request a change in the draft permit. If changes are requested, the permit shall become effective thirty days after issuance of a final permit decision, unless review is requested on the permit under §124.19 (permit appeals). Notice of the final permit decision shall be provided to the permit applicant and to each person who submitted written comments or requested notice of the final permit decision. Since commenters requested changes in the draft permit, the effective date listed in the final permit is thirty days after permit issuance.

In accordance with 40 CFR 124.19, *Appeal of RCRA, UIC, and PSD Permits*, any person who filed comments on the draft permit or participated in the public hearing may petition the Environmental Appeals Board, within 30 days after the final permit decision, to review any condition of the permit decision. Any person who failed to file comments or failed to participate in the public hearing on the draft permit may petition for administrative review only to the extent of changes from the draft to the final permit decision.

The permit and Statement of Basis represent an Agency action to issue a Federal PSD permit to Deseret Power Electric Cooperative for the addition of the Waste Coal Fired Unit at Bonanza Power Plant, under Title I, Part A, *Air Quality Emission Limitations*, and Part C, *Prevention of Significant Deterioration of Air Quality*, of the Clean Air Act, as amended. For completeness, this Statement of Basis should be read in conjunction with the PSD permit.

Any requirements established by this permit for the gathering and reporting of information are not subject to review by the Office of Management and Budget (OMB) under the Paperwork Reduction Act, because this permit is not an "information collection request" within the meaning of 44 U.S.C. § 3502(4), 3502(11), 3507, 3512 and 3518. Furthermore, this permit and any information-gathering and reporting requirements established by this permit are exempt from OMB review under the Paperwork Reduction Act because it is directed to fewer than ten persons, 44 U.S.C. § 3502(4) and 3502(11); 5 CFR § 1320.5(a).

IV. Project Description

A. Location

The proposed WCFU will be located at the existing Bonanza Power Plant, approximately 35 miles southeast of Vernal, Utah, near Bonanza, Utah in Uintah County. This location is within the exterior boundaries of the Uintah and Ouray Indian Reservation. The UTM coordinates for the proposed CFB boiler stack are 646192 meters East and 4438740 meters North. The latitude and longitude coordinates for the stack are 40° 05' 11" North and 109° 16' 48" West. The proposed project will be located in an attainment area for all pollutants. The closest non-attainment area, Utah County, which is located approximately 125 miles west of the proposed facility, is in non-attainment for PM₁₀.

The proposed WCFU will be located at an elevation of 5,030 feet above Mean Sea Level (MSL). Elevated terrain surrounds the Bonanza plant. The closest elevated terrain, the East Tavaputs Plateau, is located approximately 6 miles south of the plant. The East Tavaputs Plateau is oriented in a southwest-northeast direction with elevations ranging from approximately 6,000 to 8,000 feet MSL. Another area of elevated terrain, located northeast of the plant, is Raven Ridge. Raven Ridge, oriented southeast to northwest, has elevations ranging from 6,000 to 6,350 feet MSL. The Blue Mountain Plateau, located approximately 17 miles northeast of the plant, has elevations ranging from 6,000 to 8,500 feet.

B. Existing Facility and PSD Permitting History

As stated earlier in this Statement of Basis, the existing Bonanza power plant is a major stationary source, as defined in Federal PSD rules at 40 CFR 52.21. The existing plant consists of a single electric utility generating unit currently rated at approximately 500 megawatts, known as Unit 1. The existing Unit 1 is a pulverized coal-fired boiler fueled by washed bituminous coal from the company's Deserado mine, approximately 35 miles east of the plant. The plant is the sole user of coal from the mine. Emission controls for existing Unit 1 consist of a baghouse for PM/PM₁₀ control, a wet scrubber for SO₂ control, and low-NO_x burners for NO_x control.

On February 4, 1981, EPA Region 8 issued a Federal PSD permit for initial construction of Bonanza Power Plant, which at the time was planned to consist of two 400-megawatt units, and was permitted as such. Only one unit was built. After EPA approved Utah's PSD permitting program in the early 1980's, the State of Utah issued its own PSD permit for Unit 1, later revised to account for modifications that upgraded Unit 1 to approximately 500 megawatts. In late 1997, as a result of a Federal court decision, EPA Region 8 asserted Federal jurisdiction over Bonanza Power Plant and issued an updated Federal PSD permit for Unit 1 on February 4, 2001, replacing the 1981 Federal permit. There is currently no Federal PSD permit in effect for construction of Bonanza Unit 2.

C. Company Contacts

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D. Process Description

The proposed WCFU will utilize circulating fluidized bed (CFB) combustion technology. Control of SO₂, NO_x and acid gases (including H₂SO₄) in the combustion chamber is one of the major advantages of this technology over conventional pulverized coal fired boilers. Additional emission controls are described later in this Statement of Basis. The electricity generated by the WCFU will be supplied to the Bonanza substation.

The major components of the proposed WCFU include:

- Combustion and generating systems,
- Exhaust systems and pollution control equipment,
- Emergency power,
- Coal and limestone material handling and storage systems,
- Cooling water systems, and
- Ash disposal systems.

Principal components of a CFB boiler include primary and secondary air fans, combustor, cyclone/solids separator, superheater, economizer, air heater and induced draft fan. The CFB boiler will supply superheated steam to the extraction/condensing turbine to drive an electrical generator and supply cycle and plant auxiliary steam through uncontrolled extraction from the turbine. The boiler heat input design capacity at maximum load will be no more than 1,445 million British Thermal Units per hour (MMBtu/hr). The boiler will be fueled by western bituminous waste coal obtained from the company's nearby Deserado mine. If waste coal is not available in emergencies, ROM coal or washed coal from the Deserado Mine will be utilized (explained further below).

Combustion in the CFB boiler takes place in a vertical chamber called the combustor. The crushed coal and limestone are introduced into the combustor, fluidized and burned at temperatures of approximately 1550 F (1500 – 1650 F). The pulverized limestone reacts with the sulfur dioxide released from the burning fuel to form calcium sulfate (gypsum). This is the initial stage of SO₂ emission control. The bed material in the combustor consists primarily of mineral matter from the fuel, gypsum and excess calcined lime.

Combustion air is fed to the combustor at two levels. The bed material is fluidized with primary air introduced through an air distribution system at the bottom of the combustor and also by the combustion gases generated. Secondary air is added to the lower section of the combustor, above the dense phase fluidized bed, to achieve complete and staged combustion.

Bed material that is fluidized does not become molten, but rather the action of the air/flue gas bubbling through the bed allows the bed material to behave and move as though it were a fluid and allow thorough mixing of the bed material. Roughly fifty percent of the combustion air is introduced as primary or fluidizing air through the bottom air distribution system, and the balance is admitted as secondary air through multiple ports in the side walls. This staged combustion, at controlled relatively low temperatures, along with the injection of ammonia at the furnace outlets, effectively controls NO_x formation through selective non-catalytic reduction and provides conditions to most effectively capture SO₂ at low calcium to sulfur molar ratios.

The recycle cyclones/solids separator removes a major portion of the hot ash particles from the flue gas stream and re-circulates them back into the combustor, to enhance heat transfer to the combustor walls and to provide more time for complete combustion of the coal particles and calcination of the limestone particles. Ash is continuously withdrawn from the combustion chamber, cooled, and is then transferred for disposal.

Heat for steam generation is removed from the system in two ways: In the primary loop, heat is removed from the solids circulating in the CFB system by the heat absorbing surface in the water walls of the combustor and heat absorbing surface in the fluid bed heat exchangers. In the convection pass, heat is removed from the flue gas exiting the recycle cyclones/solids separator by superheater and economizer surfaces.

Relatively clean flue gases from the recycle cyclones/solids separator enter the convective pass of the steam generator where they pass over the superheater and economizer elements. After the convection pass, the flue gases are further cooled in an air heater, which utilizes the low grade heat of the flue gas to pre-heat combustion air. From the air heater, the flue gas continues to the dry scrubber for additional SO₂ removal, then to the baghouse filter for removal of residual particulate, then to the induced draft (ID) fan at the stack.

Flue gas will be exhausted from the boiler/baghouse train by an induced draft fan to a 275 foot high, 14 foot diameter steel stack. Ports will be provided to accommodate flue gas sampling equipment and the continuous emission monitoring system. Startup burners are used for preheating the CFB boiler bed up to coal ignition temperature and to provide heat input support at low loads. In-duct or above bed burners, firing #2 fuel oil, will be provided for startup and low load operating conditions.

The proposed WCFU will utilize portions of the existing Bonanza power plant facilities, including: the control room, administration building, raw water supply system, fuel oil system, plant drains, storm drains, sanitary and corrosive drain systems, ash conveyors, coal rail car

receiving hopper and transfer building, demineralized water system, fire protection/service water, potable water, auxiliary steam, and the grounding and cathodic protection system.

An emergency generator will supply power to the WCFU systems in the event that normal electrical power is interrupted. The emergency generator will be a diesel-fired compression-ignition internal combustion engine, rated at 750 kilowatts and 1,005 horsepower. Deseret Power estimates that use of this generator will be less than 100 hours per year.

E. Waste Coal Characteristics

The waste coal is presently landfilled in refuse pits at the Deserado mine and will be reclaimed and/or diverted from the landfill for use in the CFB boiler. Based on core samples from the existing waste coal stockpile, the permit applicant (Deseret Power) estimates the following:

**Characteristics of Waste Coal Currently Stockpiled
At Deserado Mine**

Characteristic	Average	Range
Nominal heating value	4,000 Btu/lb	3,000 Btu/lb - 5,400 Btu/lb
Sulfur content (30-day average)	0.34%	0.24% - 0.71%
Ash content	50.5%	40% - 56%
Nitrogen content	0.51%	0.37% - 0.66%

Based on samples taken from conveyors currently transporting waste coal from the wash circuit at Deserado mine to the waste coal stockpile, Deseret Power estimates that sulfur content in new waste coal going to the stockpile ranges from 0.35% to 1.33%, somewhat higher than the range of sulfur content in the current stockpile. Based on core samples from the coal seam reserve at the Deserado mine, Deseret Power estimates that future waste coal material will reach 0.71% sulfur content on a 30-day average, approximately double the average sulfur content in the current waste coal stockpile.

F. Waste Coal Versus Run-of-Mine or Washed Coal as Potential Fuel.

Deseret Power has stated that it plans to use waste coal as sole fuel for the WCFU, except for emergencies that would prevent waste coal from being delivered from the Deserado mine and placed into the WCFU, as long as a supply of waste coal, as supplemented by waste coal generated from ongoing operations, remains available from the mine. For the aforementioned emergencies where waste coal is not available, Deseret Power wants the option of using run-of-mine (ROM) coal or washed coal from the Deserado mine in the WCFU. ROM coal is raw

mined coal that has not been washed in the coal washing facility at the mine. Washed coal is mined coal that has been washed in the coal washing facility and is normally intended for use exclusively at the existing Bonanza Unit 1.

Deseret Power has also requested operational flexibility, in the EPA permit, to blend ROM coal in with the waste coal, at up to a 50/50 ratio by weight, as needed at any time, such as in the event of operational difficulties arising from use of waste coal as sole fuel, or in the event of unexpected difficulties in meeting BACT emission limits. The ROM coal has a heating value range of approximately 8,500 Btu/lb to 10,000 Btu/lb. A 50/50 blend would yield coal with average heating value of approximately 6500 Btu/lb.

Sulfur content of washed coal delivered to existing Bonanza Unit 1 has historically ranged from 0.30% to 0.86% on a daily basis, and up to 0.66% on a 30-day average. For 2005, the maximum 30-day average sulfur content increased to 0.74%. Sulfur content of ROM coal is believed by Deseret Power to be similar.

Although ROM or washed coal would be higher quality fuel than waste coal in terms of heat content (Btu's) per pound of coal burned, the cost of waste coal is much lower at current prices, by about \$30 to \$35 per ton of coal, versus ROM coal. This price differential does not include the additional cost of ROM or washed coal that accrues from the fact that use of ROM coal or washed coal at the WCFU would reduce the lifespan of the fuel supply for Unit 1, and therefore the useful lifespan of Unit 1 itself, which relies solely on the Deserado mine for fuel.

Deseret Power estimates that the WCFU can be fueled solely on waste coal from the Deserado mine for about 12 to 15 years at current mine operation levels, before other coal might have to be used to supplement the ongoing waste coal generated at the mine. This estimate is based on the following figures:

- The current waste coal stockpile is estimated at 7.9 million tons.
- New waste coal is being produced at the mine at a rate of about 0.4 to 0.6 million tons per year.
- The WCFU will use about 1.2 to 1.3 million tons per year of waste coal. This estimate is based on projected WCFU heat input rate of 1,445 MMBtu/hr, average waste coal heat content of 4,000 Btu/lb, and projected WCFU capacity factor of 80% to 85%.

Although there is a limited stockpile of waste coal as described above, the WCFU is being designed specifically to burn the waste coal. This means that equipment such as the coal handling, ash handling, limestone handling, lime supply, ammonia injection and control systems are all being designed to burn solely waste coal. If ROM coal or washed coal was to be combusted instead as primary fuel, these support systems, as well as the furnace, would be