



April 25, 2012

# BY CERTIFIED MAIL RETURN RECEIPT REQUESTED

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Stanley Gordon, Plant Manager
Deseret Generation and Transmission Co-operative
d/b/a Deseret Power
Bonanza Power Plant
12500 East 25500 South
Vernal, UT 84078

Re: Notice of Intent to File Citizen Suit Over Clean Air Act Violations at Bonanza Coal-fired Power Plant

Dear Messrs. Rasmussen and Gordon:

Pursuant to the citizen suit provision of the Clean Air Act, 42 U.S.C. § 7604(b)(1), WildEarth Guardians, the Ute Indian Tribe of the Uintah and Ouray Reservation, and Ute Indian Tribe of the Uintah and Ouray Reservation Business Committee (collectively referred to as the "Uinta Basin Clean Air Coalition"), hereby provide notice that they intend to file suit against Deseret Generation and Transmission Co-Operative ("DG&T"), doing business as Deseret Power, over tens of thousands of ongoing violations of the Clean Air Act at the Bonanza coalfired electric generating unit, otherwise known as Bonanza Power Station Unit No. 1 (hereafter referred to as the "Bonanza Plant" or "Plant"). In accordance with 40 C.F.R. § 54.3(b), within this notice letter we specifically detail these violations, providing sufficient information to permit DG&T to identify the specific standards and limitations that have been violated, the location of the violations, and the dates of the violations. Unless we can resolve these violations, after 60 days the Uinta Basin Clean Air Coalition intends to file suit against DG&T and seek appropriate injunctive relief, declaratory relief, and other relief that may be provided as necessary and provided by law to remedy these ongoing violations.

In accordance with 42 U.S.C. § 7604(b)(1)(A), we are providing copies of this notice to the Administrator and Regional Administrator of the U.S. Environmental Protection Agency ("EPA"), the Governor of the State of Utah and the Executive Director of the Utah Department of Environmental Quality, and the registered agent for DG&T. Below, we provide details regarding these alleged violations.

#### I. The Bonanza Plant

The Bonanza Plant is a 500-megawatt coal-fired power plant located in Uintah County, Utah on the Uintah-Ouray Indian Reservation. The Plant is located 7.45 miles northwest of Bonanza, Utah and approximately 35 miles southeast of Vernal, Utah in Uintah County Utah. It is a stationary source of air pollution that consists of a single coal-fired boiler, known as Unit 1, a 600-foot tall smokestack, coal handling and conveying systems, and other pollutant emitting activities. It is a major emitting facility, as defined under the Clean Air Act, because it is a fossil fuel-fired steam electric plant of more than 250 million British thermal units ("Btus") per hour and that emits more than 100 tons per year of a number of air pollutants. See 42 U.S.C. § 7479(1). In 2011, DG&T reported that the Plant emitted 6,590 tons of nitrogen oxides ("NOx"), 1,178 tons of sulfur dioxide ("SO2"), and 3,481,320 tons of carbon dioxide ("CO2"). In 2010, the Plant released 50,329 pounds of toxic air pollution, including 17,284 pounds of hydrochloric acid, 856 pounds of lead compounds, and 2.2 pounds of mercury. The Plant currently operates with no add-on controls for NOx emissions, a baghouse to control particulate matter emissions, and a scrubber to control SO<sub>2</sub> emissions.

Because it is a major emitting facility, the Bonanza Plant has been permitted under the prevention of significant deterioration ("PSD") program of the Clean Air Act. The PSD program is a strict permitting program that requires major emitting facilities to obtain permits prior to being constructed or undergoing major modifications. Among other things, the PSD program imposes requirements that best available control technology ("BACT") be utilized to control emissions and that modeling analyses be conducted to ensure that emissions do not inappropriately impact air quality standards.

The Bonanza Plant received its original PSD permit from the EPA on February 4, 1981. This permit authorized the construction and operation of the Plant. The EPA later reissued the PSD permit on February 2, 2001, largely reincorporating the limits from the 1981 PSD Permit. Although the State of Utah has issued various air permits authorizing DG&T to undertake several modifications or additions to the Bonanza Plant, the State of Utah has never truly had jurisdiction over the facility. Indeed, while the State of Utah received authorization from the EPA for its PSD program in 1982, the EPA made clear at the time that the State's PSD program "does not necessarily apply on Indian Reservations." 47 Fed. Reg. 6427 (Feb. 12, 1982).

Yet as early as 1985, it has been clear that the Bonanza Plant is located on the Uinta-Ouray Indian Reservation. That year, the United States Court of Appeals for the 10<sup>th</sup> Circuit settled the boundaries of the southern portion of the Uintah-Ouray Indian Reservation, also known as the Uncompanger Reservation, where the Bonanza Plant is located. *See Ute Indian Tribe v. Utah*, 773 F.2d 1087 (10th Cir. 1985) (*en banc*), *cert. denied*, 479 U.S. 994, 107 S.Ct.

596, 93 L.Ed.2d 596 (1986). Based on the 10<sup>th</sup> Circuit's ruling, the Bonanza Plant has always been and continues to be within the Uintah-Ouray Indian Reservation.

Suffice it to say, at least by November 18, 1997, the EPA had actually asserted federal jurisdiction by issuing the Plant's Acid Rain Program Permit (hereafter "Acid Rain Permit") pursuant to Title IV of the Clean Air Act, and since that time has acted as the permitting authority for the facility. Courts have since upheld the fact that the EPA, not the State of Utah, is charged with authority to administer Clean Air Act programs on the Uintah-Ouray Reservation. See U.S.A. v. Questar Gas Mgmt. Co., 2011 WL 1793164 (D. Utah).

Under the Clean Air Act, EPA established National Ambient Air Quality Standards ("NAAQS") to protect human health and the environment for seven "criteria" air pollutants, including nitrogen dioxide, ground-level ozone, and particulate matter, including particulate matter less than 10 microns in diameter ("PM<sub>10</sub>") and particulate matter less than 2.5 microns in diameter ("PM<sub>2.5</sub>"). See 40 C.F.R. § 50.1, et seq. An area that meets the NAAQS for a criteria pollutant is deemed to be in "attainment" for that pollutant. See 40 U.S.C. § 7407(d)(1). The region where the Plant is located is often referred to as the Uinta Basin and has been and is currently in attainment of all National Ambient Air Quality Standards ("NAAQS"). However, air pollution levels are on the rise and the region is now close to violating NAAQS for groundlevel ozone and particulate matter less than 2.5 microns in diameter, or PM<sub>2.5</sub>. The State of Utah has noted that "Over the past several years...air quality monitors have shown that concentrations of both PM<sub>2.5</sub> and ozone are at times at or above the current standard." See http://www.deq.utah.gov/Issues/uinta basin/index.htm (last accessed April 10, 2012). Given that NOx emissions can form ozone and both NOx and SO<sub>2</sub> can form PM<sub>2.5</sub>, there is increasing concern that emissions from the Bonanza Plant are fueling the region's growing air pollution problems.

#### II. The Violations

The violations that have occurred and that continue to occur at the Bonanza coal-fired power plant involve the failure of DG&T to comply with federal PSD rules, to operate the Plant consistent with representations made in its PSD permit application, and to comply with emission limits set forth in the current PSD permit. In total, it appears that DG&T has violated the Clean Air Act on tens of thousands of occasions in the last five years, which is generally the accepted statute of limitations for pursuing civil penalties over violations under the Clean Air Act. *See* 28 U.S.C. § 2462). This statute of limitations does not apply in the context of injunctive relief, however, particularly where the violations are recurring in nature. *See e.g. U.S.A. v. Telluride Co.*, 146 F.3d 1241, 1248 (10<sup>th</sup> Cir. 1998). These violations, which are all ongoing, are as follows:

1. Violation of New Source Review Requirements under Federal PSD Regulations and the Clean Air Act—Failure to Apply For, Obtain, and Operate the Bonanza Plant in Accordance with a PSD Permit

Under the Clean Air Act, a major emitting facility with a PSD permit that undertakes a major modification in an area designated as attainment for all NAAQS must apply for, obtain, and operate its facility consistent with a new PSD permit that requires, among other things, compliance with BACT and an assessment of air quality impacts. *See* 42 U.S.C. § 7475(a); *see also* 40 C.F.R. § 52.21(i) (1999). Such a permit must be obtained prior to constructing the major modification. *Id.* These requirements are often referred to as New Source Review, or NSR.

A major modification is defined as, "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emission increase of any pollutant subject to regulation under the [Clean Air] Act." 40 C.F.R. § 52.21(b)(2)(i) (1999). A significant net emissions increase is defined depending on the pollutant. For NOx emissions, a significant net emissions increase occurs whenever the "net emissions increase or the potential of a source to emit" resulting from a physical change exceeds 40 tons per year. See 40 C.F.R. §§ 52.21(b)(3)(i)(a) and (b)(23)(i) (1999). For SO<sub>2</sub> emissions, it is also 40 tons per year and for particulate matter less than 10 microns in diameter ("PM<sub>10</sub>"), it is 15 tons per year. See 40 C.F.R. §§ 52.21(b)(3)(i)(a) and (b)(23)(i) (1999).

Here, DG&T undertook physical changes, or a modification, to the Bonanza Plant that had the potential to significantly increase NOx, SO<sub>2</sub>, and PM<sub>10</sub> emissions. Despite this, DG&T has not applied for, obtained, and operated the Plant consistent with a new federal PSD permit. This constitutes a violation of the Clean Air Act, 42 U.S.C. § 7475(a), and regulations thereunder, 40 C.F.R. §§ 52.21(r) and 52.23. DG&T violated and continues to violate PSD requirements as follows:

### b. Failure to Obtain PSD Permit Related to Major Modifications, Ongoing Violations Related Thereto

At various points between 1998 and 2000, but no later than June of 2000, DG&T commenced construction of, within the meaning of 40 C.F.R. § 52.21(b)(9) (1999), several related physical changes at the Bonanza Plant, including, but not limited to:

- The installation of a ruggedized low pressure ("LP") turbine rotor and other turbine upgrades and/replacements, including installation of new high pressure ("HP") and intermediate pressure ("IP") turbines;
- Replacement of three of the five coal pulverizers with higher output pulverizers, rebuilding the other two pulverizers, as well as other pulverizer upgrades;

<sup>1</sup> Throughout this NOI, we refer to the PSD rules in place in 1999, which were the applicable rules at the time of the alleged PSD violations. The 1999 version of the federal PSD rules were also the same as the 1998 and 1997 versions. If we do not refer explicitly to the 1999 rules, or any other version of the PSD rules, within this NOI, then we mean to refer to the most current version of the PSD rules.

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<sup>&</sup>lt;sup>2</sup> The provisions of 40 C.F.R. §§ 52.21(r) and 52.23 are the same today as they were in 2000 and in years prior. The Uinta Basin Clean Air Coalition thereby alleges that the major modification that occurred in 2000 violated the 1999 version, or earlier versions, of the regulations, and that ongoing operation has continued to violate each version of the regulations that has been published since then to the present.

- Replacement of the burner barrels tips with larger barrels and tips; and
- The expansion of the Plant's coal pile.

Collectively, both DG&T and the EPA have referred to these physical changes as "upgrades."

According to data obtained from EPA through the Freedom of Information Act, some of these upgrades were variously authorized by the State of Utah between 1998 and 1999, including the installation of the ruggedized rotor and coal pile expansion on March 16, 1998 (*see* Exhibit 1), the replacement of three of the five pulverizers with higher output pulverizers on May 20, 1999 (*see* Exhibit 2), and on December 17, 1999, approved further upgrading and rebuilding of the pulverizers and the replacement of boiler barrels and burner tips (*see* Exhibit 3).<sup>3</sup> These upgrades were largely, if not entirely, undertaken during the spring of the year 2000. Indeed, documentation submitted by DG&T to EPA indicates that the company intended to, and did in fact, complete the upgrades during this time period. Furthermore, according to data submitted to DG&T to EPA's Clean Air Markets website, an extended outage occurred at the Plant between April 29, 2000 and June 10, 2000, indicating that all or a substantial part of these upgrades were fully or partially completed during that time.

The intent of these upgrades, and in particular the ruggedized rotor installation, which, according to DG&T, involved the "replacement of the HP/IP and LP rotating and stationary equipment," was to increase the generating capacity of the Bonanza Plant. According to DG&T, the ruggedized rotor project was intended to "increase Bonanza 1's generating capacity by at least 28 MW [megawatts][.]" Letter from DG&T to Utah Division of Air Quality, "Request for Approval Order for DG&T Bonanza Unit (1) Power Plant Emission Limits and Ruggedized Rotor Project, Uintah County" (1998) at Attachment 1, attached as Exhibit 4. To accommodate this increase in capacity, DG&T undertook the pulverizer upgrades. As the company stated in an April 20, 1999 letter to the State of Utah, "The current Foster Wheeler MBF-22.5 pulverizers are rated at 50 tons per hour and the new B&W pulverizers will be rated at 62 tons per hour....The planned changes to the pulverizers will match the performance and heat input already approved for the turbine." Letter from DG&T to Utah Division of Air Quality, "Ruggedized Rotor and Pulverizer Replacement" (April 20, 1999), attached as Exhibit 5. Furthermore, the burner barrel and tip upgrades were also intended to accommodate upgrades to the pulverizers and coal handling system, and in turn an increase in boiler capacity. See Letter from Advanced Burner Technologies Corp. to DG&T, "Bonanza Unit #1 NOx Emissions with New Pulverizers" (Sept. 30, 1999), attached as Exhibit 6.

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<sup>&</sup>lt;sup>3</sup> Although the State of Utah "authorized" these projects, the State did not actually have jurisdiction or authorization to regulate any activity at the Bonanza Power Plant under the Clean Air Act. Furthermore, even if the State had jurisdiction, it did not issue any new PSD permits or otherwise require DG&T to meet any relevant PSD requirements in conjunction with the projects. In fact, the State of Utah appears to have to issued its authorization on the basis of DG&T's representation that emissions, particularly of NOx, would decrease, or otherwise would not be increased. DG&T's representation, however, was erroneous and the State of Utah approval orders, or any similar State authorization, cannot serve to absolve the company of PSD liability.

Other related physical changes also occurred at the same time related to DG&T's upgrade efforts, further indicating an intent by the company to increase the Plant's capacity. According to an article from *Modern Power Systems* dated October 1, 1999, the upgrades included "installation of a new high efficiency combined HP/IP [high pressure/intermediate pressure] turbine" [and the] "fitting of new generator hydrogen coolers to maintain generator reliability at higher load." *See* Exhibit 7. This article stated that the overall upgrade effort was expected to add 32 megawatts of capacity to the Bonanza Power Plant.

These upgrades were clearly intended to increase the capacity of the Bonanza Plant and extend its useful life. In seeking approval from the State of Utah for the 2000 upgrades, DG&T explicitly stated that the upgrades would increase the maximum heat input rate from 4,381 to 4,578 mmBtu per hour at the Plant. Heat input is essentially a measure of coal usage. This means that DG&T undertook the upgrades so that the Bonanza Plant could burn more coal, thereby generating more electricity and increasing its emissions. Not surprisingly, this increased the capacity of the Plant by anywhere from 28 to 32 megawatts. Furthermore, by installing a number of new significant components, including the ruggedized rotor and HP/IP and LP turbine upgrades, generator hydrogen coolers, burner tips and barrels, etc., the company clearly intended to extend the useful life of the Plant.

Here, there is no question that the 2000 upgrades constituted physical changes within the meaning of federal PSD regulations. There is no indication that DG&T claimed that the modifications constituted "routine maintenance, repair and replacement" (see 40 C.F.R. § 52.21(b)(2)(iii)(a) (1999)), which would have been the burden of the company to demonstrate prior to undertaking the upgrades. In fact, the ruggedized rotor installation, coal pulverizer replacements and rebuilds, burner barrel and tip replacements, and coal pile expansion were explicitly "authorized" by the State of Utah. If the upgrades were "routine maintenance, repair and replacement," DG&T would not have been required to secure any kind of authorization. Although the State of Utah did not have authority to issue any authorization for any modification at the Bonanza Plant, its prior "authorizations" are illustrative of the fact that the 2000 upgrades were not "routine maintenance, repair and replacement."

Furthermore, the EPA and States have on numerous occasions found that turbine and rotor replacements, similar to those undertaken at the Bonanza Plant, have not constituted routine maintenance or repair. *See e.g.* Letter from Richard R. Long, EPA Region 8 Air and Radiation Program Director to Gary D. Helbling, Environmental Engineer, North Dakota Health Department, "EPA Region VIII's Opinion on Otter Tail Power Company's Coyote Station Low Pressure Rotor Upgrade Proposal" (April 17, 2001) (noting that low pressure turbine rotor upgrade did not constitute routine maintenance or repair).

At issue then, is whether these physical changes had the potential to lead to a significant net emissions increase. At the time, DG&T appears to have taken the position that there were no potential significant net emissions increases associated with the upgrades. However, this position was and continues to be wholly unsupported.

Under federal PSD rules in place at the time, a major emitting facility undertaking a physical change or changes was required to obtain a new PSD permit if the change or changes

had the potential to lead to a significant net emissions increase of any pollutant subject to regulation under the Clean Air Act. At the time, a determination of whether a potential significant net emissions increase would occur was based on whether the difference between the potential to emit after a change and the actual emissions prior to the change represented a significant increase for any pollutant, as set forth under 40 C.F.R. § 52.21(b)(23) (1999). This was commonly referred to as the "actual to potential" test.

In general, the PSD rules required that actual emissions be based on "the average rate, in tons per year, at which the unit actually emitted the pollutant during a two-year period which precedes the particular date [of modification][.]" 40 C.F.R. § 52.21(21)(ii) (1999). The potential to emit was required to be based on "the maximum capacity of a stationary source to emit a pollutant under its physical and operational design." 40 C.F.R. § 52.21(b)(4) (1999). Under the rules, any physical or operational limitation on emissions from a source are considered to be "part of its design if the limitation...on emissions is *federally enforceable*." *Id*. (emphasis added). Federally enforceable means "all limitations and conditions which are enforceable by the [EPA] Administrator, including...any permit requirements established pursuant to 40 CFR 52.21." 40 C.F.R. § 52.21(b)(17) (1999).

For electric generating units undertaking a physical change or changes, the PSD rules in place in 2000 provided an alternative means of determining whether a significant net emissions increase would occur. Rather than basing a determination of a significant net emissions increase on potential emissions after the physical change or changes, the rules allowed sources to base such a determination on "representative actual annual emissions," which were defined as "the average rate, in tons per year, at which the source is projected to emit a pollutant for the two-year period after a physical change[.]" 40 C.F.R. § 52.21(b)(33) (1999). This is referred to as the "actual to representative actual" test. For a source electing to use this test, the PSD rules required that the source "maintains and submits to the [EPA] Administrator on an annual basis for a period of five years from the date the unit resumes regular operation, information demonstrating that the physical or operational change did not result in an emissions increase." 40 C.F.R. § 52.21(b)(21)(v) (1999).

The PSD rules are clear that where a source does not elect to utilize the "actual to representative actual" test or fails to maintain and submit the required information to the EPA, the "actual to potential" test applies.

Thus, to support any claim that the upgrades of the Bonanza Plant undertaken in 2000 did not constitute a major modification, DG&T was required to demonstrate using the "actual to potential test" or, if elected, the "actual to representative actual test" that there would be no significant net emissions increase for any pollutant subject to regulation under the Clean Air Act.

Here, there is no question that a significant net emissions increase occurred in conjunction with the 2000 upgrades based on an "actual to potential" test for NOx,  $SO_2$ , and  $PM_{10}$  emissions. Furthermore, although we disagree that DG&T would be allowed to utilize the "actual to representative actual" test, even under this test, a significant net increase in NOx,  $SO_2$ , and  $PM_{10}$  emissions occurred. These significant net emissions increases, as well as DG&T's ongoing PSD liability, are demonstrated as follows:

#### i. As a Threshold Matter, DG&T Did not Assess Emissions Increases Using Actual Pre-Construction Emissions

To begin with, it appears that DG&T did not assess whether a significant net increase in NOx, SO<sub>2</sub>, and PM<sub>10</sub> emissions would occur based on actual, pre-construction emissions at the time. This indicates that DG&T violated PSD requirements under the Clean Air Act in failing to accurately assess pre-upgrade actual emissions.

With regards to NOx emissions, in correspondence to the EPA and the State of Utah regarding the 2000 upgrades, it appears that DG&T represented its "actual" emissions rate to be 10,558 tons per year. However, the Bonanza Plant was not emitting anywhere near 10,558 tons per year at the time prior to the 2000 upgrades. According to data submitted by DG&T to the EPA's Clean Air Markets Database, between 1995 and 2000, the Bonanza Plant emitted between 5,231 and 7,377 tons per year.

Table 1. Actual Annual Emissions, by Calendar Year, at the Bonanza Plant, 1995-1999, (emissions based on data submitted by DG&T to EPA's Clean Air Markets Database, which can be queried at http://camddataandmaps.epa.gov/gdm/index.cfm).<sup>4</sup>

Year	Emissions (tons/year)
1999	5,699.9
1998	6,855.8
1997	6,133.8
1996	7,377.0
1995	5,231.0

Rather than an "actual" emissions rate, the 10,558 tons per year rate seems to represent the maximum potential emissions from the Bonanza Plant, or it's "potential to emit." Data indicates that the 10,558 tons per year was likely based on the plant's maximum permitted NOx emission rate of 0.55 lbs. per million Btu ("mmBtu") of coal consumed, an assumed heat input rate of 4,381 mmBtu per hour, and an assumption that the Plant was operating at fully 8,760 hours in a year, the total amount of hours in a year. Of course, data indicates that the Plant has never emitted at a rate of 0.55 pounds of NOx per mmBtu and that it has never operated for 8,760 hours within a year. And although heat input may have ranged above 4,381 mmBtu per

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<sup>&</sup>lt;sup>4</sup> This data is presented purely to illustrate that calendar year emissions from the Bonanza Plant never came close to 10,558 tons per year. Below in this notice letter, we detail what actual baseline emissions data should have been used by DG&T to assess whether the 2000 upgrades represented a major modification under PSD.

<sup>&</sup>lt;sup>5</sup> The 0.55 lbs. per mmBtu NOx limit, which was in the 1981 PSD Permit, was also carried over into the 2001 PSD Permit. *See* 2001 PSD Permit at 18, Condition 27.

hour prior to the 2000 upgrades, actual emissions data shows that the NOx emissions rate never came close to 10,558 tons per year.<sup>6</sup>

Based on DG&T's presumption that actual NOx emissions were 10,558 tons/year, the company claimed that after the 2000 upgrades, emissions would be reduced to 10,029.3 tons. This was due to the company's claimed acceptance of reduction in allowable NOx emissions from 0.55 to 0.5 lbs. per mmBtu, thereby indicating a net decrease of more than 500 tons per year. However, because the company did not base its assessment on pre-upgrade actual emissions, this claimed net decrease is erroneous.

Similarly, when assessing increases in SO<sub>2</sub> and PM<sub>10</sub> at the Bonanza Plant in conjunction with the 2000 upgrades, DG&T assessed its pre-construction emissions based on potential, rather than actual emissions. For instance, with regards to SO<sub>2</sub>, DG&T represented that pre-construction emissions would equal 1,929.7 tons per year. *See* Exhibit 8, DG&T, Notice of Intent for Ruggedized Rotor Installation. However, based on data submitted by the company to the EPA's Clean Air Markets Database, actual annual emissions averaged only around 1,300 tons/year prior to the upgrades. *See* Table 2 below.

Table 2. Average Annual SO<sub>2</sub> Emissions at the Bonanza Plant, April 1997-April 2000, (emissions based on data submitted by DG&T to EPA's Clean Air Markets Database, which can be queried at http://camddataandmaps.epa.gov/gdm/index.cfm).<sup>8</sup>

Two-Year Period	Average Emissions (tons/year)	
April 1997-April 1999	1,380.20	
April 1998-April 2000	1,219.98	

Although prior to the 2000 upgrades, DG&T claimed that overall emissions at the Bonanza Plant would decrease, this claimed decrease would not allow the company to avoid PSD. Although the Clean Air Act allows contemporaneous emissions decreases at a source to count toward whether a modification has triggered a significant net emissions increase, such

emissions should have been lower than reported by DG&T to the EPA.

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<sup>&</sup>lt;sup>6</sup> As will be explained in more detail in this notice letter, we have a number of concerns over the heat input rate assumed and reported by DG&T, particularly after the 2000 upgrades. Although the rate of 4,381 mmBtu per hour appears to be what DG&T assumed in order to calculate potential emissions prior to the 2000 upgrades, it does not appear that the company was allowed by the Clean Air Act to burn coal at a rate any higher than 4,055 mmBtu per hour at the Bonanza Plant at any time. Regardless, actual emissions data shows that the Plant never emitted close to 10,558 tons of NOx per year. Even assuming that pre-upgrade actual NOx emissions should have been calculated based on an assumed heat input rate lower than 4,381 mmBtu per hour, this would indicate that actual NOx

<sup>&</sup>lt;sup>7</sup> Although DG&T claimed credit for a reduction in the allowable NOx emission rate from 0.55 to 0.5 lbs. per mmBtu, both the 1981 and the 2001 PSD Permits actually allow the Bonanza Plant to emit at a rate of up to 0.55 lbs. per mmBtu. Thus, there is no basis for any claimed credit for any NOx reductions. Furthermore, DG&T did not accept any enforceable limits on annual NOx emissions. Thus, although the company may have accepted a lower emission rate, it did not accept any federally enforceable limit on annual NOx emissions.

<sup>&</sup>lt;sup>8</sup> This data is presented purely to illustrate that calendar year emissions from the Bonanza Plant never came close to 10,558 tons per year. Below in this notice letter, we detail what actual baseline emissions data should have been used by DG&T to assess whether the 2000 upgrades represented a major modification under PSD.

decreases are creditable only on a pollutant-by-pollutant basis. In other words, a decrease in one pollutant, for example carbon monoxide, cannot offset an increase in another pollutant, such as NOx. Furthermore, contemporaneous net emissions decreases are only creditable under PSD to the extent that they are federally enforceable. *See* 40 C.F.R. § 52.21(b)(3)(iv)(b). Here, despite any claim of reduced emissions, there is no indication that emissions of NOx, SO<sub>2</sub>, or PM<sub>10</sub> individually decreased on a net basis, or that any emissions decrease was the result of federally enforceable limits.

Clean Air Act PSD requirements are clear that an assessment of whether a major modification will occur or has occurred must be based on pre-construction actual emissions, as defined by 40 C.F.R. § 52.21(21)(ii) (1999). Thus, DG&T violated PSD requirements by failing to appropriately assess whether the 2000 upgrades would lead to a significant net emissions increase at the Bonanza Plant. This runs afoul of the Clean Air Act. *See* 40 C.F.R. § 52.23 (failure to comply with PSD rules shall be a violation). Such a violation is subject to enforcement. *See* 40 C.F.R. § 52.21(r) (stating that failure to apply for and obtain required PSD permit shall be subject to enforcement). As will be explained in the following sections of this notice letter, this failure to accurately assess emissions led to DG&T undertaking a major modification at the Bonanza Plant without securing and operating the Plant in compliance with a new PSD permit, in violation of the Clean Air Act.

# ii. NOx Emissions—Actual Significant Net Increase Resulting from 2000 Upgrades

Using data submitted by DG&T to the EPA that is readily available through the EPA's Clean Air Markets Database, an actual significant net increase in NOx emissions occurred as a result of the 2000 upgrades, thereby triggering PSD obligations. Although PSD applicability is not based on whether an "actual" significant net emissions increase occurs, actual post-construction emissions can be determinative of the fact that a physical change had the potential to lead to a significant net emissions increase, thereby triggering PSD liability. Furthermore, in this case, the actual post-construction emissions are illustrative of the fact that the 2000 upgrades did, in fact, lead to a significant net emissions increase.

To determine the pre-construction baseline NOx emissions, we based our calculation on the actual annual emission rate in the two-years preceding the commencement of construction of the upgrades, as required by PSD rules in place at the time. *See* 40 C.F.R. § 52.21(b)(21)(ii) (1999).<sup>9, 10</sup> Thus, we determined baseline emissions based on the average NOx emissions rate, in tons/year, between April 1998 and March 2000.

52.21(b)(3)(vi)(b) (1999). In this case, any decrease in emissions that DG&T may claim credit for in the five years prior to the 2000 upgrades is not creditable under PSD due to the fact that the emission decreases were not federally enforceable. Thus, the pre-construction actual emissions baseline must be based on the two years of emissions data immediately preceding the upgrades.

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<sup>&</sup>lt;sup>9</sup> Although sources may take credit for any emission decreases occurring between a period of five years prior to the modification and the date at which a net emission increase occurred (*see* 40 C.F.R. § 52.21(b)(3)(ii) (1999) (stating that an increase or decrease in actual emissions before a physical change is creditable if it occurred within five years of the physical change)), this was only allowed if the decrease was federally enforceable. *See* 40 C.F.R. §

<sup>&</sup>lt;sup>10</sup> A source may utilize another two-year period to assess baseline emissions only if it is "more representative of normal source operation" and if the EPA Administrator approves. *See* 40 C.F.R. § 52.21(b)(21)(ii) (1999). In this

To determine the post-construction NOx emissions, the PSD rules in place in 2000 required that "actual emissions as of a particulate date shall equal the average rate, in tons per year, at which the unit actually emitted the pollutant during a two-year period which precedes the particular date[.]" 40 C.F.R. § 52.21(b)(21)(ii) (1999). Furthermore, for electric steam generating units, the rules required that "actual emissions" equal "representative actual emissions," which were required to be based on "the average rate, in tons per year, at which the source is projected to emit a pollutant for a two-year period after a physical change[.]" 40 C.F.R. § 52.21(b)(33) (1999). In this case, we determined post-construction actual emissions using the average NOx emissionss rate, in tons/year, between July 2000 and June 2002, or the two-year period immediately following the modification.<sup>11</sup>

Under the PSD rules in place at the time, a significant net increase in NOx emissions would occur whenever net emissions increased by 40 tons per year or more. Using this pre and post-upgrade emissions data, a significant net increase in NOx emissions occurred at the Bonanza Plant in 2000. See Table 3. In fact, the total net increase in NOx emissions was 1,124 tons per year, more than 28 times the 40 ton per year significant emission rate in the PSD regulations.

Table 3. Actual Net Emissions Increase at the Bonanza Plant Resulting from 2000 Upgrades (emissions calculated using data submitted by DG&T to EPA's Clean Air Markets Database, which can be queried at

http://camddataandmaps.epa.gov/gdm/index.cfm).

Actual Emissions	Actual Annual Emissions	Net Emissions
Pre-Upgrade	Post-Upgrade	Increase
5,981 tons/year (April 1998-March 2000)	7,105 tons/year (July 2000-June 2002)	1,124 tons/year

Furthermore, even if DG&T disagrees with the selected pre-construction baseline dates or post-construction actual emissions calculation, the company's own emissions data indicates that regardless of which two-year period prior to the upgrades and which two-year period postconstruction is selected, a significant net increase in NOx emissions would occur.

The upgrades thus constituted a major modification to the Bonanza Plant given that they led to an actual significant net increase in NOx emissions, indicating that pre-construction potential to emit exceeded significant net emission rates. Despite this, DG&T never applied for or obtained a new federal PSD permit, and has since failed to operate the facility consistent with

case, not only is there no evidence that any other two year period was "more representative of normal source operation" at the Bonanza Plant, but the Administrator never allowed DG&T to use a different two year period for purposes of assessing baseline actual emissions at the Plant.

<sup>&</sup>lt;sup>11</sup> A source may utilize another two-year period to assess "representative actual emissions" only if it is within 10 years after the change, it is "more representative of normal source operation," and if the EPA Administrator approves. 40 C.F.R. § 52.21(33) (1999). In this case, not only is there no evidence that any other two year period is "more representative of normal source operation" at the Bonanza Plant, but the Administrator never allowed DG&T to use a different two year period for purposes of assessing post-construction actual emissions at the Plant.

a new PSD permit. A significant net emissions increase can be demonstrated based on "actual" emissions. See 40 C.F.R. § 52.21(b)(3)(i)(a) (1999). In light of this, the failure to apply for, obtain, and operate the Bonanza Power Plant consistent with a new federal PSD permit runs afoul of the Clean Air Act. See 40 C.F.R. § 52.23 (failure to comply with PSD rules shall be a violation). Such an ongoing violation is subject to enforcement. See 40 C.F.R. § 52.21(r) (stating that failure to apply for and obtain required PSD permit shall be subject to enforcement).

### iii. NOx Emissions—Significant Net Emissions Increase Based on Potential to Emit

Using an "actual to potential" test, there is also no question that the physical changes at the Bonanza Plant in 2000 led to a significant increase in NOx emissions, triggering PSD obligations.

In this case, the actual pre-construction emissions would continue to be the same as explained above. With regards to post-construction potential emissions, these would be based on "the maximum capacity of a stationary source to emit a pollutant under its physical and operational design," in addition to any "federally enforceable" limits on emissions. 40 C.F.R. § 52.21(b)(4) (1999). Here, a determination of the Bonanza Plant's potential to emit is simple to calculate based on DG&T's own disclosures and its own PSD permit.

It is critical to first note that DG&T represented to the State of Utah and to EPA that the potential annual NOx emissions rate at the Bonanza Plant after the 2000 upgrades would be 10,029.3 tons per year. However, it is unclear whether this potential to emit estimate was based on any federally enforceable limits on annual NOx emissions and importantly, did not seem to be based on "the maximum capacity of a stationary source to emit a pollutant under its physical and operational design." Based on the maximum capacity of the Bonanza Plant to emit, it would appear that the potential to emit would have actually been the 10,558 tons per year of NOx reported by DG&T as the pre-construction potential to emit. 12

However, we can also assess potential to emit based on the allowable heat input rate at the Bonanza Plant. At the time the Plant was first permitted under PSD, heat input was limited to no more than 4,055 mmBtu per hour. DG&T later asserted in 1994 that the heat input rate was actually limited to 4,381 mmBtu per hour. Yet at the time that DG&T sought approval from the State of Utah for the installation of the ruggedized rotor and other turbine upgrades in 1998, the company represented that that the upgrades would lead to a heat input rate of 4,578 mmBtu per hour.

Although we disagree that DG&T was allowed to operate the Bonanza Plant at anything higher than a 4,055 mmBtu per hour heat input rate, nevertheless, we can calculate the Plant's potential to emit based on the three heat input scenarios provided by the company, the NOx emission rate of 0.55 lbs. per mmBtu, and the assumption that the plant would operate a full 8,760 hours, which is reasonable given that there are no federally enforceable limits on operating

<sup>&</sup>lt;sup>12</sup> The post-upgrade potential to emit is most likely higher. The 1981 PSD Permit established a limit on NOx emissions of 0.55 lbs. per mmBtu. This limit was also carried over into the 2001 PSD Permit. This indicates that the Plant has been allowed to emit more NOx than represented by DG&T in its correspondence to the State of Utah.

hours at the Plant. Based on these assumptions, the potential to emit would have been 9,768.50 tons per year based on a 4,055 mmBtu per hour heat input rate, 10,553.83 tons per year based on a 4,381 mmBtu per hour heat input rate, and 11,028.40 tons per year based on a 4,578 mmBtu per hour heat input rate.

In all scenarios, a significant net increase in NOx emissions would occur based on an actual to potential test. In fact, the increase in annual NOx emissions could be as high as 5,047 tons per year. *See* Table 4 below.

Table 4. Significant Net Increases in NOx Emissions at the Bonanza Plant Resulting from 2000 Upgrades Based on Potential to Emit Scenarios.

Actual Emissions Pre-Upgrade	Potential to Emit Post-Upgrade (tons/year)	Net Emissions Increase (tons/year)
	10,558 (potential to emit as stated in 1998)	4,577
5,981 tons/year (April 1998- March 2000)	10,029.3 (claimed potential to emit post-construction)	4,048.3
	11,028.40 (based on 4,578 mmBtu/hour)	5,047.40
	10,553.83 (based on 4,381 mmBtu per hour)	4,572.83
	9,768.50 (based on 4,055 mmBtu per hour)	3,787.50

The upgrades thus constituted a major modification to the Bonanza Plant given that they had the potential to lead to a significant net increase in NOx emissions at the time that they were undertaken. Despite this, DG&T never applied for or obtained a new federal PSD permit, and has since failed to operate the facility consistent with a new PSD permit. In light of this, the failure to apply for, obtain, and operate the Bonanza Power Plant consistent with a new federal PSD permit runs afoul of the Clean Air Act. *See* 40 C.F.R. § 52.23 (failure to comply with PSD rules shall be a violation). Such an ongoing violation is subject to enforcement. *See* 40 C.F.R. § 52.21(r) (stating that failure to apply for and obtain required PSD permit shall be subject to enforcement).

## iv. NOx Emissions—Significant Net Emissions Increase Based on Representative Actual Emissions

Using an "actual to representative actual test," there is also no question that the physical changes at the Bonanza Plant in 2000 led to significant net increase in NOx emissions, triggering PSD obligations.

Before we explain, however, it is important to point out that DG&T never elected to use the alternative "actual to representative actual test" as a means to demonstrate that PSD did not apply to the Bonanza Plant. Furthermore, the EPA has confirmed that DG&T never submitted to

the EPA Administrator on an annual basis for a period of five years from the date the Bonanza Plant resumed normal operations information demonstrating that the upgrades did not result in an emissions increase. Thus, the "actual to representative actual test" set forth in the 1999 PSD regulations is inapplicable to the Plant with regards to the 2000 upgrades.

Nevertheless, even assuming, *arguendo*, that an "actual to representative actual" test could be applied, it appears that the 2000 upgrades led to a significant net emissions increase at the Bonanza Plant.

Here, the actual pre-construction emissions would continue to be the same. However, in calculating representative actual emissions, such an assessment would have been required to be based on "all relevant information, including, but not limited to, historical operational data, the company's own representations, filings with the State or Federal regulatory authorities, and compliance plans under title IV of the Clean Air Act." *See* 40 C.F.R. § 52.21(b)(33)(i) (1999)). In calculating any post-construction representative actual emissions, emissions not related to the physical change and that could have been legally and physically accommodated during the baseline period are excluded. *See* 40 C.F.R. § 52.21(b)(33)(ii) (1999).

Although DG&T clearly intended to undertake the 2000 upgrades in order to increase the capacity of the Bonanza Plant, we assume the company intended to operate the Plant a similar number of hours every year following the upgrade, as well as intended to emit NOx emissions at similar rates. We also assume that, given DG&T's representations, the company intended to increase the assumed heat input rate to 4,578 mmBtu per hour. Based on the average annual hours of operation of the plant in the two years prior to the 2000 upgrades, which according to EPA Clean Air Markets Data, from April 1998 to March of 2000 was 8,530 hours, and using the average NOx emission rate during that same two year period, which was 0.325 pounds per mmBtu, we can then calculate representative emissions following the upgrades. *See* Table 5.

Table 5. Significant Net Increases in NOx Emissions at the Bonanza Plant Resulting from 2000 Upgrades Based on Refined Representative Actual Emissions.

Actual Emissions Pre-Upgrade	Assumed Post- Upgrade Heat Input	Assumed Post- Upgrade Hours of Operation	Assumed Post-Upgrade NOx Emission Rate	Representative Actual Emissions Post- Upgrade	Net Emissions Increase
5,981 tons/year (April 1998- March 2000)	4,578 mmBtu/hour	8,530	0.325 pounds/mmBtu	6,345.68 tons/year	364.68 tons/year

The data demonstrates that, even using an "actual to representative actual" test, a 364.68 ton per year increase in NOx emissions would occur post-construction, thereby representing a significant net emissions increase. Although other "actual to representative actual" emission scenarios may be possible, the aforementioned calculation represents one of the more

conservative assessments. We submit that, if an "actual to representative actual" test could possibly even apply (it does not), regardless of what scenario may be utilized, a significant net increase in NOx emissions would occur. Furthermore, given that the NOx emissions were both related to the 2000 upgrades and could not have been legally and physically accommodated during the baseline period, DG&T could not avail itself of any emission "exclusions" under 40 C.F.R. § 52.21(b)(33)(ii) (1999) under any "actual to representative actual" scenario.

This further indicates that the 2000 upgrades constituted a major modification to the Bonanza Plant. Despite this, DG&T never applied for or obtained a new federal PSD permit, and has since failed to operate the facility consistent with a new PSD permit. In light of this, the failure to apply for, obtain, and operate the Bonanza Power Plant consistent with a new federal PSD permit runs afoul of the Clean Air Act. *See* 40 C.F.R. § 52.23 (failure to comply with PSD rules shall be a violation). Such an ongoing violation is subject to enforcement. *See* 40 C.F.R. § 52.21(r) (stating that failure to apply for and obtain required PSD permit shall be subject to enforcement).

### v. SO<sub>2</sub> Emissions—Significant Net Emissions Increase Based on Actual to Potential Test

Using an "actual to potential" test, the physical changes at the Bonanza Plant in 2000 also led to a significant increase in SO<sub>2</sub> emissions, triggering PSD obligations.

To determine the pre-construction baseline  $SO_2$  emissions, we based our calculation on the actual annual emission rate in the two-years preceding the commencement of construction of the upgrades, as required by PSD rules in place at the time. See 40 C.F.R. § 52.21(b)(21)(ii) (1999). Thus, we determined baseline emissions based on the average  $SO_2$  emissions rate, in tons/year, between April 1998 and March 2000. This baseline was 1,234.82 tons per year.

With regards to post-construction potential emissions, these would be based on "the maximum capacity of a stationary source to emit a pollutant under its physical and operational design," in addition to any "federally enforceable" limits on emissions. 40 C.F.R. § 52.21(b)(4) (1999). Here, a determination of the Bonanza Plant's potential to emit is simple to calculate based on DG&T's own disclosures and its own PSD permit.

Once again, it is critical to note that DG&T represented to the State of Utah and to EPA that the potential annual SO<sub>2</sub> emissions rate at the Bonanza Plant after the 2000 upgrades would be either 2,016.5 tons per year or 1,968.11 tons per year. *See* Exhibit 8. However, that potential to emit estimate was not based on any federally enforceable limit on annual SO<sub>2</sub> emissions and importantly, was not based on "the maximum capacity of a stationary source to emit a pollutant under its physical and operational design." Based on the maximum capacity of the Bonanza Plant to emit, it would appear that the potential to emit would have actually been 2,131.308 tons per year of SO<sub>2</sub>, which is based on a 4,055 mmBtu per hour heat input, an annual SO<sub>2</sub> emission rate of 1.2 lbs. per mmBtu, and a 90% reduction requirement.

However, based on DG&T's assertion that the allowable heat input rate at the Bonanza Plant may be 4,381 mmBtu per hour, or even as high as 4,578 mmBtu per hour, the actual

potential to emit may be even higher. Although we disagree that the company was allowed to burn coal at a rate higher than 4,055 mmBtu per hour after the 2000 upgrades, even assuming that the applicable heat input rates may be higher, this just means that the potential to emit following the 2000 upgrades would have been higher. Regardless, in all scenarios, a significant net increase, or 40 tons per year, in SO<sub>2</sub> emissions would occur based on an actual to potential test. *See* Table 6 below.

Table 6. Significant Net Increases in SO<sub>2</sub> Emissions at the Bonanza Plant Resulting from 2000 Upgrades Based on Potential to Emit Scenarios.

Actual Emissions Pre-Upgrade	Potential to Emit Post-Upgrade (tons/year)	Net Emissions Increase (tons/year)
1,234.82 tons/year	2,016.5 (potential to emit as stated in 1998)	781.68
	1,968.11 (claimed potential to emit post-construction)	733.29
	2,406.20 (based on 4,578 mmBtu/hour)	1,171.38
	2,302.65 (based on 4,381 mmBtu per hour)	1,067.83
	2,131.31 (based on 4,055 mmBtu per hour)	896.49

Although DG&T may claim that an "actual to representative actual" emissions test applies, as explained, DG&T never elected to use such a test to determine its PSD applicability. Thus, PSD applicability of the Bonanza Plant with regards to the 2000 upgrades and  $SO_2$  emissions must be based on an "actual to potential" test.

That a significant net increase in  $SO_2$  emissions occurred should not be a surprise to DG&T. Even the company disclosed in 1998 that the 2000 upgrades, or at least the ruggedized rotor replacement and associated HP/IP and LP turbine upgrades, would lead to an 86.28 ton per year increase in  $SO_2$ .

The 2000 upgrades therefore constituted a major modification to the Bonanza Plant given that they had the potential to lead to a significant net increase in SO<sub>2</sub> emissions at the time that they were undertaken. Despite this, DG&T never applied for or obtained a new federal PSD permit, and has since failed to operate the facility consistent with a new PSD permit. In light of this, the failure to apply for, obtain, and operate the Bonanza Power Plant consistent with a new federal PSD permit runs afoul of the Clean Air Act. See 40 C.F.R. § 52.23 (failure to comply with PSD rules shall be a violation). Such an ongoing violation is subject to enforcement. See 40 C.F.R. § 52.21(r) (stating that failure to apply for and obtain required PSD permit shall be subject to enforcement).

### vi. PM<sub>10</sub> Emissions—Significant Net Emissions Increase Based on Actual to Potential Test

Using an "actual to potential" test, the physical changes at the Bonanza Plant in 2000 also led to a significant increase in  $PM_{10}$  emissions, triggering PSD obligations.

Based on data submitted by DG&T to the EPA, it appears that prior to the 2000 upgrades, the Bonanza Plant emitted at a baseline of at or around 244 tons per year. With regards to post-construction potential emissions, these would again be based on "the maximum capacity of a stationary source to emit a pollutant under its physical and operational design," in addition to any "federally enforceable" limits on emissions. 40 C.F.R. § 52.21(b)(4) (1999). Here, a determination of the Bonanza Plant's potential to emit can be calculated based on DG&T's own disclosures and its own PSD permit.

Before undertaking the 2000 upgrades, DG&T represented that its potential to emit following the changes would be either 925.64 or 929.92 tons per year. However, based on the allowable heat input at the Bonanza Plant, as well as the permitted  $PM_{10}$  rate of 0.0286 lbs. per mmBtu for the coal-fired boiler, a more accurate potential to emit would be 507.96 tons per year. Assuming that the other heat input rates of 4,381 and 4,678 mmBtu per hour may apply, the potential to emit would be even higher. Regardless, in all scenarios, a significant net increase, or 15 tons per year, in  $PM_{10}$  emissions would occur based on an actual to potential test. *See* Table 7 below

Table 7. Significant Net Increases in PM<sub>10</sub> Emissions at the Bonanza Plant Resulting from 2000 Upgrades Based on Potential to Emit Scenarios.

Actual Emissions Pre-Upgrade	Potential to Emit Post-Upgrade (tons/year)	Net Emissions Increase (tons/year
244 tons/year	929.92 (claimed potential to emit post-construction)	685.92
	925.64 (claimed potential to emit post-construction)	681.64
	573.48 (based on 4,578 mmBtu/hour)	329.48
	548.80 (based on 4,381 mmBtu per hour)	304.8
	507.96 (based on 4,055 mmBtu per hour)	263.96

Although DG&T may claim that an "actual to representative actual" emissions test applies, as explained, DG&T never elected to use such a test to determine its PSD applicability. Thus, PSD applicability of the Bonanza Plant with regards to the 2000 upgrades and  $PM_{10}$  emissions is based on an "actual to potential" test.

That a significant net increase in  $PM_{10}$  emissions occurred should not be a surprise to DG&T. Even the company disclosed in 1998 that the 2000 upgrades, or at least the ruggedized rotor replacement, would lead to a 17.92 ton per year increase in  $PM_{10}$ .

The 2000 upgrades therefore constituted a major modification to the Bonanza Plant given that they had the potential to lead to a significant net increase in PM<sub>10</sub> emissions at the time that they were undertaken. Despite this, DG&T never applied for or obtained a new federal PSD permit, and has since failed to operate the facility consistent with a new PSD permit. In light of this, the failure to apply for, obtain, and operate the Bonanza Power Plant consistent with a new federal PSD permit runs afoul of the Clean Air Act. See 40 C.F.R. § 52.23 (failure to comply with PSD rules shall be a violation). Such an ongoing violation is subject to enforcement. See 40 C.F.R. § 52.21(r) (stating that failure to apply for and obtain required PSD permit shall be subject to enforcement).

### c. Failure to Comply with Duties that Were Applicable Upon Completing a Major Modification and that Remain Applicable Today

The failure of DG&T to obtain a new PSD permit prior to undertaking a major modification of the Bonanza Plant means that the Plant is currently operating in violation of a number of Clean Air Act PSD requirements that became applicable at the time of the major modification and therefore continue to apply on an ongoing basis today. These requirements include, but are not limited to:<sup>13</sup>

- 40 C.F.R. § 52.21(i), Control technology requirements: Under this section of the PSD rules, a major modification "shall apply best available control technology for each regulated NSR [new source review] pollutant for which it would result in a significant net emissions increase at the source." 40 C.F.R. § 52.21(j)(3). In this case, DG&T at least was required to apply BACT to its NOx, SO<sub>2</sub>, and PM<sub>10</sub> emissions at the Bonanza Plant after undertaking the 2000 upgrades, but was also required to apply BACT for any other pollutant where there was a significant net emissions increase. BACT for NOx emissions could include, but not be limited to, the use of selective catalytic reduction ("SCR"), a post-combustion control technology that is commonly used as BACT to limit NOx emissions at coal-fired power plants. See EPA Office of Air and Radiation, "Final Report: Performance of Selective Catalytic Reduction on Coal-fired Steam Electric Generating Units" (June 25, 1997), available at http://www.epa.gov/airmarkets/progsregs/arp/docs/scrfinal.pdf (last accessed April 10, 2012). The use of SCR could reduce NOx emissions from an allowable rate of 0.55 lbs, per mmBtu to 0.05 mmBtu or lower, a 90% decrease in emissions at the Bonanza Plant. The duty to apply BACT has been ongoing since the 2000 major modification. Thus, for every day that DG&T has operated the plant without applying BACT, the company has violated 40 C.F.R. § 52.21(j).
- 40 C.F.R. § 52.21(k), Source impact analysis: Under this section of the PSD rules, a source is required to demonstrate that emissions increases associated with a major modification, including all other applicable emissions increases and reductions (including secondary emissions) do not cause or contribute to air pollution in violation of any NAAQS and PSD increment limits. DG&T has not made such a

.

<sup>&</sup>lt;sup>13</sup> The requirements listed below include the requirements set forth at 40 C.F.R. § 52.21(j)-(o). These requirements have remained substantially the same in all versions of the PSD regulations promulgated and/or published from 1998 to the present.

demonstration since undertaking its 2000 major modification, yet has continued to operate the Bonanza Plant. Every day that the company has operated the Plant without completing a source impact analysis therefore constitutes an ongoing violation of 40 C.F.R. § 52.21(k).

- 40 C.F.R. § 52.21(1), Air quality models: Under this section of the PSD rules, a source is required to demonstrate that a major modification does not cause or contribute to air pollution in violation of any NAAQS and PSD increment limits using applicable air quality models, particularly those specified at 40 C.F.R. § 51, Appendix W. Since the 2000 major modification, DG&T has not modeled the impacts of the Bonanza Plant to the NAAQS and PSD increments. Every day that the company has operated the Plant without using modeling to analyze air quality impacts therefore constitutes an ongoing violation of 40 C.F.R. § 52.21(1).
- 40 C.F.R. § 52.21(m), Air quality analysis: Under this section of the PSD rules, a source is required to submit an air quality analysis when applying for a permit for a major modification. Furthermore, the source is required to conduct such post-construction ambient air quality monitoring as the Administrator may deem appropriate. DG&T never submitted an application for a new PSD permit in conjunction with the 2000 major modification and therefore never submitted the required air quality analysis. Furthermore, DG&T never conducted post-construction ambient air quality monitoring after completing the major modification. Every day that the company has operated the Plant without submitting an application for a new PSD permit containing an air quality analysis and without monitoring ambient air quality after construction therefore constitutes an ongoing violation of 40 C.F.R. § 52.21(m).
- 40 C.F.R. § 52.21(n), Source information: Under this section of the PSD rules, the owner or operator of a proposed modification "shall submit all information necessary to perform any analysis or make any determination required under this section." In this case, DG&T failed to submit information necessary to make an accurate PSD applicability determination prior to undertaking its 2000 major modification. DG&T either submitted inaccurate information to the EPA or entirely failed to submit information necessary to make a PSD applicability determination for the 2000 upgrades. In either event, DG&T violated 40 C.F.R. § 52.21(n) and the company's ongoing failure to submit such information to the EPA constitutes an ongoing violation of the Clean Air Act.
- 40 C.F.R. § 52.21(o), Additional impact analyses: Under this section of the PSD rules, a source is required to analyze impacts to visibility impairment, impacts to soils and vegetation, and general commercial, residential, and industrial growth associated with the major modification. DG&T has not prepared such an analysis since undertaking its 2000 major modification, yet has continued to operate the Bonanza Plant. Every day that the company has operated the Plant without completing this required analysis therefore constitutes an ongoing violation of 40 C.F.R. § 52.21(o).

Although these violations are related to DG&T's obligation to obtain a new PSD permit in conjunction with the 2000 major modification of the Bonanza Plant, they are independent and discrete violations of the Clean Air Act that are ongoing. They not only emphasize the consequences of DG&T's failure to obtain a new PSD permit, but underscore the ongoing nature of the company's noncompliance with PSD rules and the Clean Air Act.

#### d. Effect of EPA's 2001 Reissued PSD Permit

Although the EPA reissued the PSD permit for the Bonanza Plant in 2001 after the 2000 upgrades, this permit does not and cannot serve to absolve DG&T of its obligation to obtain a new PSD permit to ensure compliance with the Clean Air Act.

To begin with, the 2001 PSD Permit was issued based on DG&T's representation that the 2000 upgrades would decrease NOx emissions and would not significantly increase SO<sub>2</sub> and PM<sub>10</sub> emissions. Although the 2001 permit indicates that it "pertains" to the 2000 upgrades (*see* 2001 PSD Permit at 6, Condition 5.B), the permit pertains to these upgrades insofar as they did not constitute a major modification or modifications of the Bonanza Plant. In other words, although the permit may mention the 2000 upgrades, it did not impose additional PSD requirements because DG&T represented that those modifications did not trigger PSD. EPA accepted DG&T's representations at the time as valid and thus, did not reissue the permit to ensure that the 2000 upgrades were subject to PSD requirements. As the 2001 permit states, "This Permit is issued in reliance upon the accuracy and completeness of the information set forth in the application to the State of Utah and that provided by EPA." 2001 PSD Permit at 6, Condition 5.A.

That the 2001 permit does not impose PSD obligations on DG&T over the 2000 upgrades is obvious in several aspects. For example, the permit does not impose BACT requirements for NOx,  $SO_2$ , and  $PM_{10}$  emissions. In fact, the 2001 permit appears to allow DG&T to emit NOx,  $SO_2$ , and  $PM_{10}$  at virtually the same rates originally allowed in 1981. Furthermore, prior to obtaining the 2001 permit, no source impact analysis was prepared and no other air quality impacts analysis was prepared. Functionally, the 2001 permit simply does not address the 2000 upgrades, and the significant increase in NOx,  $SO_2$ , and  $PM_{10}$  emissions, as a major modification under PSD.

The 2001 reissued PSD permit is simply that: a reissued permit that does not impose any new Clean Air Act requirements, least of all any PSD requirements related to the 2000 upgrades. It is notable that the 2001 permit expressly states that it "does not release the Permittee from any liability for compliance with other applicable federal and Tribal environmental law and regulations, including the Clean Air Act." 2001 PSD Permit at 2, Condition 49. It therefore does not absolve DG&T of any Clean Air Act liability with regards to this major modification.

# 2. Violations of Federal PSD Regulations and PSD Permit—Failure of DG&T to Operate the Bonanza Plant in Accordance with its PSD Permit Application

PSD rules state that "[a]ny owner or operator who constructs or operates a source or modification not in accordance with the application submitted pursuant to this section or with the

terms of any approval to construct...shall be subject to appropriate enforcement action." 40 C.F.R. § 52.21(r). In this case, DG&T has failed to operate and continues to fail to operate the Bonanza Plant in accordance with its PSD permit and permit application as follows.

## b. Failure to Operate the Bonanza Plant in Accordance with Represented Heat Input Limits

DG&T has failed to operate the Bonanza Plant in accordance with heat input rates that it assumed and represented as part of its PSD permits and applications. Heat input, which is measured on a mmBtu per hour basis, is basically a measure of coal usage. It is significant given that emission rates for the Bonanza Plant are dependent upon heat input. For example, PM<sub>10</sub> emissions are limited to no more than 0.0286 lbs. per mmBtu, SO<sub>2</sub> emissions are limited to no more than 1.2 pounds per mmBtu, and NOx emissions are limited to 0.55 lbs. per mmBtu rate for NOx. The higher the heat input, or coal usage, the more emissions come from the Plant.

Here, DG&T has exceeded its assumed hourly heat input rate, meaning it has ultimately burned more coal than it represented it would burn, in turn releasing more pollution at the Bonanza Plant than originally assumed and expected. In this case, it appears that the heat input limit represented by DG&T in its application for its 1981 PSD Permit, which was 4,055 mmBtu per hour, applies to the Plant. Although the company may claim that this limit was supplanted by two subsequent increases in heat input rates—an increase to 4,381 and an increase to 4,578 mmBtu per hour—this claim is unfounded. Regardless of which heat input rate may apply to the Bonanza Plant, however, DG&T has exceeded assumed heat input rates on thousands of occasions. Below, we explain and set forth the basis for these violations:

## i. Failure to Operate the Bonanza Plant in Accordance with 4,055 mmBtu Heat Input Rate Limit

In applying for its 1981 PSD Permit, DG&T represented that the maximum heat input rate for the Bonanza Plant would be 4,055 mmBtu per hour. As DG&T noted in a 1994 letter to the State of Utah, this presumed heat input rate was "used for air quality modeling." *See* Letter from DG&T to Russell A. Roberts, Executive Secretary, Utah Air Quality Board, "Response to Utah Division of Air Quality's PSD Applicability/Major Modification Determination" (December 9, 1994) at 2. This letter is attached as Exhibit 9. In other words, based on an assumed heat input rate of 4,055 mmBtu/hour, DG&T represented, and the EPA agreed, that operation of the Bonanza Plant would comply with all applicable PSD requirements, such as the protection of NAAQS.

This heat input rate was and continues to be enforceable. As the 1981 permit stated, "The owner or operator shall abide by all presentations, statements of intent, and agreements contained in the application and in all additions, modifications, and corrections thereto, as presented for public inspection." 1981 PSD Permit at 5, Condition III(11). Furthermore, as 40 C.F.R. § 52.21(r) expressly states, DG&T is obligated to operate in accordance with its submitted PSD permit application.

As the permit application assumed that the plant would operate at a 4,055 mmBtu per hour heat input rate, DG&T was and continues to be obligated to operate the Bonanza Plant consistent with this assumption in accordance with its PSD permit. This is especially true given that compliance with PSD requirements was premised upon the 4,055 mmBtu per hour heat input rate. If DG&T were allowed to exceed this heat input rate, then there would be no assurance that the Bonanza Plant would not jeopardize the NAAQS or other air quality standards, or comply with other applicable PSD requirements.

Additionally, this heat input rate was not supplanted or otherwise replaced by the 2001 PSD Permit reissued by the EPA. As the EPA expressly stated in its Fact Sheet for the 2001 permit, the 1981 PSD Permit was only "modified" by the 2001 permit, but was not replaced. As the PSD rules state, a PSD permit "shall remain in effect" unless it expires under 40 C.F.R. § 52.21(s) or is rescinded in accordance with 40 C.F.R. § 52.21(w). See 40 C.F.R. § 52.21(w)(1). Here, neither situation has occurred. Although EPA noted in the 2001 PSD Permit that that the "actual heat input generation is about 4578 MMBTU/hr," this does not appear to have modified the 1981 PSD Permit or the underlying assumptions made by DG&T in its application for the 1981 permit. If anything, it appears that DG&T inaccurately represented its maximum or actual heat input to the EPA in applying for the 2001 reissued PSD permit.

Furthermore, to the extent that DG&T may claim that the State of Utah authorized heat input increases at the Bonanza Plant, as noted earlier, the State of Utah has never been authorized to implement the Clean Air Act within the Uintah-Ouray Reservation and therefore has never been authorized to regulate the Bonanza Plant with regards to applicable Clean Air Act requirements.

Despite the fact that DG&T has been bound to operate the Bonanza Plant consistent with a heat input rate of 4,055 mmBtu per hour, a review of data submitted by the company to the EPA's Clean Air Markets Database indicates that this heat input rate has been violated thousands of times.

In the last five years alone (January 1, 2007-January 1, 2012), DG&T has exceeded a heat input rate of 4,055 mmBtu per hour on at least 31,272 occasions. Put another way, in the last five years, the Bonanza Plant has exceeded its heat input rate for 31,272 hours. According to data submitted by DG&T to the EPA, the Bonanza Plant has operated for 38,921 hours in the last five years, meaning that the company has violated the 4,055 mmBtu per hour limit more than 80% of its operating time. Attached to this notice letter is a Microsoft Excel spreadsheet identifying the exact date and operating hour during which the 4,055 mmBtu per hour heat input limit was violated. *See* Exhibit 10. This spreadsheet was created by directly copying data from the EPA's Clean Air Markets database and pasting it into Microsoft Excel.

seeking injunctive relief. However, given that the injunctive relief obtained over violations in the last five years would be the same as violations occurring prior to the last five years, the Uinta Basin Clean Air Coalition alleges only violations of the applicable heat input rate at the Bonanza Plant for the last five years. We do not suggest or imply that DG&T did not violate its applicable heat input rate prior to the last five years.

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<sup>&</sup>lt;sup>14</sup> We focus on the last five years due to the statutory limitation on the timing for commencing proceedings for the enforcement of civil penalties. *See* 28 U.S.C. § 2462. This statute of limitations does not apply in proceedings

According to the data, total heat input has frequently exceeded 5,000 mmBtu per hour, nearly 25% higher than what is allowed, and peaked as high as nearly 7,000 mmBtu per hour, more than 70% higher than what is allowed, for several hours. Suffice it to say, more often than not, DG&T has operated the Bonanza Plant contrary to its 1981 PSD Permit and application. The ramifications of these violations have been significant. For instance, the Bonanza Plant has been permitted to emit particulate matter at a rate of 0.03 lbs. per mmBtu. At a heat input rate of 4,055 mmBtu per hour, and assuming that the Plant operated 8,760 hours annually, this means the Plant would be allowed to emit only 532 tons of particulate matter annually. However, based on annual heat input data submitted by DG&T to EPA, the Bonanza Plant has likely emitted upwards of 600 tons of particulate matter, far more than what was originally contemplated when DG&T applied for and obtained its 1981 PSD Permit.

Based on a 4,055 mmBtu per hour heat input rate, DG&T has therefore violated its 1981 PSD Permit and permit application, and in turn 40 C.F.R. § 52.21(r), at least 31,272 times in the last five years. These violations are ongoing.

### ii. In the Alternative, Failure to Operate the Plant in Accordance with 4,381 mmBtu Heat Input Rate Limit

In 1994, DG&T argued in a letter to the State of Utah that it was actually allowed to operate the Bonanza Plant at a heat input rate of 4,381 mmBtu per hour, rather than 4,055 mmBtu per hour. *See* Exhibit 9. According to DG&T, the company had actually represented in its application materials that the Bonanza Plant's maximum heat input rate was 4,381 mmBtu/hour. In this same letter, DG&T affirmed its belief that operating the Bonanza Plant at this heat input rate was authorized under its PSD permit.

Although DG&T's claims do not appear to hold true, especially given that the company admitted in its 1994 letter that the 4,055 mmBtu per hour heat input rate was relied upon in modeling the impacts of the Bonanza Plant to ensure compliance with PSD requirement as part of its 1981 PSD Permit, even assuming, *arguendo*, that the 4,381 mmBtu per hour limit may apply, the company has still violated its heat input rate on thousands of occasions.

According to data submitted by DG&T to the EPA, the heat input rate of 4,381 mmBtu per hour has been violated on at least 26,525 occasions in the last five years. This means that for 68% of the total operating time of the Bonanza Plant in the last five years, the heat input rate of 4,381 mmBtu per hour has been violated. Attached to this notice letter is a spreadsheet identifying the exact date and operating hour during which the 4,381 mmBtu per hour heat input limit was violated. *See* Exhibit 10. This spreadsheet was created by directly copying data from the EPA's Clean Air Markets database and pasting it into Microsoft Excel.

Thus, although we disagree that the 4,055 mmBtu per hour rate is not applicable and enforceable, even assuming that the 4,381 mmBtu per hour rate is applicable and enforceable based on representations made with regards to the company's 1981 PSD Permit, DG&T has still violated its 1981 PSD Permit and permit application, and in turn 40 C.F.R. § 52.21(r), at least 26,525 times in the last five years. These violations are ongoing.

## iii. In the Alternative, Failure to Operate the Plant in Accordance with 4,578 mmBtu Heat Input Rate Limit

Despite the 4,055 mmBtu heat input rate represented in its original 1981 PSD Permit, DG&T represented to the EPA in its application for its reissued 2001 PSD Permit that the maximum heat input rate at the Bonanza Plant was 4,578 mmBtu per hour. This heat input rate seems to have resulted from the State of Utah's approval of a heat input rate increase to 4,578 mmBtu per hour that occurred in conjunction with the 2000 upgrades. However, as explained, the State of Utah has not had authority over the Bonanza Plant with regards to implementing the Clean Air Act. Furthermore, to the extent that the 4,578 mmBtu per hour rate was mentioned by the EPA in the 2001 PSD Permit, as explained, it does not appear that the EPA modified the 1981 permit such that the 4,055 mmBtu per hour heat input limit is no longer applicable.

Nevertheless, assuming, *arguendo*, that the 4,578 mmBtu per hour heat input rate is applicable, DG&T has still violated its heat input rates on thousands of occasions. According to data submitted by DG&T to the EPA, the heat input rate of 4,578 mmBtu per hour has been violated on at least 23,413 occasions in the last five years. This means that for more than 60% of the total operating time of the Bonanza Plant in the last five years, the heat input rate of 4,578 mmBtu per hour has been violated. Attached to this notice letter is a spreadsheet identifying the exact date and operating hour during which the 4,578 mmBtu per hour heat input limit was violated. *See* Exhibit 10.

Thus, although we disagree that the 4,055 mmBtu per hour rate is not applicable and enforceable, even assuming that the 4,578 mmBtu per hour rate is applicable and enforceable based on representations made with regards to the company's reissued 2001 PSD Permit, DG&T has still violated its reissued 2001 PSD Permit and permit application, and in turn 40 C.F.R. § 52.21(r), at least 23,413 times in the last five years. All indications are that these violations are ongoing.

### iv. Violations of PSD With Regards to the Aforementioned Heat Input Violations

Based on these heat input violations, it appears that DG&T triggered PSD applicability. The heat input increases appear to have constituted physical changes of the Bonanza Plant that led to significant net emissions increases.

Although an increase in the production rate of a source does not normally constitute a physical change that triggers a major modification under PSD, the rules are clear that if such a change "would be prohibited under any federally enforceable permit condition," it would constitute a physical change. 40 C.F.R. § 52.21(b)(2)(iii)(f). Here, DG&T was not allowed by both its 1981 and 2001 PSD Permits to operate the Bonanza Plant at a heat input rate above 4,055 mmBtu per hour. Alternatively, the Plant was not allowed to operate above 4,381 or, at the very highest, 4,578 mmBtu per hour. Thus, as DG&T has operated the Plant at a heat input rate above these allowable rates, the company undertook physical changes under PSD. These physical changes occurred at least at the time that DG&T undertook the 2000 upgrades and have continued every year since.

Based on an "actual to potential" test, every time DG&T operated the Bonanza Plant at a heat input higher than the allowable rate, a significant net emissions increase resulted, particularly of NOx emissions. As explained above, the Bonanza Plant has the potential to emit NOx at a rate as low as 8,880.45 tons per year or as high as 10,558 tons per year. Actual emissions, however, have never even exceeded 7,500 tons per year. In other words, the actual baseline NOx emissions have consistently been more than 40 tons lower than the potential to emit.

Based on this assessment, it also appears that for every time DG&T operated the Bonanza Plant at a heat input higher than the allowable rate, a significant net increase in  $SO_2$  and  $PM_{10}$  also occurred. Even if DG&T could argue that an "actual to representative actual" test should or could apply to any physical change tied to excessive heat input rates, it appears that significant net emissions increases have regularly occurred.

The PSD rules also state that a significant net increase in NOx emissions also represents a significant net increase for ozone, and that a significant net increase in  $PM_{2.5}$  occurs whenever there is a either a direct increase in  $PM_{2.5}$  of 10 tons per year and/or whenever there is a significant net increase in NOx or  $SO_2$  emissions. See 40 C.F.R. § 52.21(b)(23)(i). Thus, the significant net increases in NOx and  $SO_2$  also represent significant increases in ozone and  $PM_{2.5}$ , and in all likelihood, there was a significant net increase in direct  $PM_{2.5}$  emissions that triggered PSD applicability.

Thus, for every time DG&T operated the Bonanza Plant at a heat input higher than the allowable rate in the last five years, the company undertook a physical change that led to a significant net increase in NOx, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions and was obligated to obtain a PSD permit in accordance with 40 C.F.R. § 52.21. However, DG&T has not obtained a PSD permit or permits, and therefore is in violation of the Clean Air Act.

### b. Failure to Operate the Bonanza Plant in Accordance with Represented Maximum Hourly NOx Limits

Because hourly heat input at the Bonanza Plant has been and continues to be limited in accordance with 40 C.F.R. § 52.21(r) based on DG&T's representations regarding the Plant's maximum heat input, this in turn means that hourly NOx emissions have been similarly limited. The reason is straightforward. If hourly heat input is limited by DG&T's PSD permit application, then, as a practical matter, hourly NOx emissions should also be limited. For instance, if hourly heat input is limited to no more than 4,055 mmBtu per hour, as represented by DG&T in its 1981 PSD Permit and application, then, as a practical matter, hourly NOx emissions should not exceed 2,230 pounds per hour, based on an emission rate of 0.55 lbs. per mmBtu, the current limit at the Bonanza Plant.

Here, DG&T has exceeded its assumed hourly NOx emission rate based on a heat input rate of 4,055 mmBtu per hour, but also, alternatively, based on a heat input of 4,381 and 4,578 mmBtu per hour. Although we disagree that DG&T is allowed to operate the Bonanza Plant. Regardless of which heat input rate may apply to the Bonanza Plant, DG&T has exceeded

assumed hourly NOx emission rates on thousands of occasions. Below, we explain and set forth the basis for these violations:

## i. Failure to Operate the Bonanza Plant in Accordance with Maximum Hourly NOx Rate of 2,230 Pounds per Hour

As explained, based on a represented maximum heat input rate of 4,055 mmBtu per hour, the hourly NOx emissions rate at the Bonanza Plant should not exceed 2,230 lbs. per hour. Thus, every hour that NOx emissions exceeded 2,230 lbs. per hour would be a violation of 40 C.F.R. § 52.21(r).

In the last five years, DG&T has regularly exceeded this hourly NOx emission rate on at least 1,321 occasions. Attached to this notice letter is a Microsoft Excel spreadsheet identifying the exact date and operating hour during which the 2,230 lbs. per hour NOx limit was violated. *See* Exhibit 11.

Thus, based on a 4,055 mmBtu per hour heat input rate and a presumed hourly NOx limit of 2,230 pounds per hour, DG&T has therefore violated its 1981 PSD Permit and permit application, and in turn 40 C.F.R. § 52.21(r), at least 1,321 times in the last five years. These violations are ongoing.

## ii. In the Alternative, Failure to Operate the Plant in Accordance with Maximum Hourly NOx Rate of 2,409 Pounds per Hour

Although we disagree that DG&T is allowed to operate the Bonanza Plant at a heat input rate of 4,381 lbs. per mmBtu, nevertheless, if the company is allowed to operate the plant at such a heat input rate, than the maximum allowable hourly NOx emission rate would be 2,409 lbs. per hour. Thus, every hour that NOx emissions exceeded 2,409 lbs. per hour would be a violation of 40 C.F.R. § 52.21(r).

In the last five years, DG&T has regularly exceeded this hourly NOx emission rate on at least 315 occasions. Attached to this notice letter is a spreadsheet identifying the exact date and operating hour during which the 2,409 lbs. per hour NOx limit was violated. *See* Exhibit 11.

Thus, based on a 4,055 mmBtu per hour heat input rate and a presumed hourly NOx limit of 2,409 pounds per hour, DG&T has therefore violated its 1981 PSD Permit and permit application, and in turn 40 C.F.R. § 52.21(r), at least 315 times in the last five years. These violations are ongoing.

## iii. In the Alternative, Failure to Operate the Plant in Accordance with Maximum Hourly NOx Rate of 2,501 Pounds per Hour

Although we disagree that DG&T is allowed to operate the Bonanza Plant at a heat input rate of 4,578 lbs. per mmBtu, nevertheless, if the company is allowed to operate the plant at such a heat input rate, than the maximum allowable hourly NOx emission rate would be 2,501 lbs. per

hour. Thus, every hour that NOx emissions exceeded 2,501 lbs. per hour would be a violation of 40 C.F.R. § 52.21(r).

In the last five years, DG&T has regularly exceeded this hourly NOx emission rate on at least 153 occasions. Attached to this notice letter is a spreadsheet identifying the exact date and operating hour during which the 2,501 lbs. per hour NOx limit was violated. *See* Exhibit 11.

Thus, based on a 4,055 mmBtu per hour heat input rate and a presumed hourly NOx limit of 2,501 pounds per hour, DG&T has therefore violated its 2001 PSD Permit and permit application, and in turn 40 C.F.R. § 52.21(r), at least 153 times in the last five years. These violations are ongoing.

#### c. Violations of Opacity Limits

According to DG&T's 1981 and 2001 PSD Permits, emissions from the boiler of the Bonanza Plant are subject to a 20% opacity limitation. *See* 1981 PSD Permit at 2, Condition III(2)(b) and 2001 PSD Permit at 11, Condition 16.D. This means that emissions from the smokestack of the Plant must not exhibit an opacity, or density, that is greater than 20%. Opacity is an indicator of particulate matter emissions, meaning that this limit is meant to ensure that particulate matter is kept in check at the Bonanza Plant. This opacity requirement stems from Clean Air Act New Source Performance Standard ("NSPS") requirements at 40 C.F.R. § 60.42a(b) and applies on a six minute basis. In other words, average opacity values must not exceed 20% for every six-minute period that the Plant is operating. To ensure compliance, companies, like DG&T, are required to use a continuous opacity monitoring system ("COMs"). *See* 2001 PSD Permit at 9, Condition 15.C.

The PSD permits provide two exceptions to this applicable opacity limit: 1) DG&T is allowed to exceed 20% opacity, but not exceed 27% opacity, for one six minute period per hour and 2) DG&T is allowed to exceed 20% opacity during startups, shutdowns, and malfunctions, an exception also set forth under the NSPS at 40 C.F.R. § 60.11(c). *See* 2001 PSD Permit at 9, Condition 13.C. and at 11, Condition 16.D.

As part of complying with the NSPS, DG&T is required to submit excess emission reports ("EERs") to the EPA on a quarterly basis. For every six minute period that the opacity limit is exceeded based on COMS monitoring data, the company is required to provide in its EERs, among other things, the magnitude of the excess emission, the operating time during the reporting period, specific identification of each period of excess emission that occurs during startups, shutdowns, and malfunctions, the nature and cause of any malfunction (if known), and the corrective action taken or the preventative measures adopted. *See* 40 C.F.R. § 60.7(c)(1) and (2). DG&T's 2001 PSD Permit similarly require compliance with 40 C.F.R. § 60.7. *See e.g.*, 2001 PSD Permit at 22, Condition 41.

We reviewed EERs submitted by DG&T to EPA for the last five years and found that, although most of the EERs document excess opacity emissions, none of the company's EERs contain information regarding corrective action and preventative measures, as required by the

NSPS at 40 C.F.R. § 60.7(c)(2). Thus, for every EER submitted in the last five years that documented excess opacity emissions, DG&T has violated the NSPS and the 2001 PSD Permit.

A further review of DG&T's EERs indicates that the company has also violated applicable opacity limits on hundreds of occasions. Discounting all reported excess emissions during startup, shutdown, and malfunction, according to DG&T's own COMS data, in the last five years, the company has violated the 20% opacity limit on 540 occasions. The causes of these violations are reported as: ignitor testing; baghouse bypassed during load ramp; problems with an air heater caused the baghouse to be bypassed; chemical wash in the boiler/oil fires only; balancing rebuild ID fan; baghouse trip on high temperature; baghouse bypassed during cleaning cycle; and baghouse bag failure. Of these violations, 431 involved opacity readings that exceeded 27%, meaning they were not exempt under the company's PSD permits.

Attached to this notice letter is a spreadsheet identifying the exact date and operating hour and time during which the applicable opacity limits were violated. *See* Exhibit 12. This Microsoft Excel spreadsheet is based on DG&T's own EERs submitted to the EPA. These opacity violations have repeated on a regular basis in the last five years, and thus are ongoing.

#### III. The Citizen Suit Provision of the Clean Air Act

Under the Clean Air Act, any person may file suit against any other person alleged to "have violated (if there is evidence that the alleged violation has been repeated) or to be in violation of...an emission standard or limitation under this Act[.]" 42 U.S.C. § 7604(a)(1)(A). The phrase "emission standard or limitation" is broadly defined under the Clean Air Act and includes, but is not limited to, any "emission limitation, standard or performance or emission standard," "any condition or a requirement under part C of title I [of the Clean Air Act] (relating to significant deterioration of air quality)," and "any other standard, limitation, or schedule established under...any permit term or condition." 42 U.S.C. §§ 7604(f)(1), (3), and (4).

Under the citizen suit provision of the Clean Air Act, the Uinta Basin Clean Air Coalition is entitled to injunctive and declaratory relief, the recovery of attorneys fees and costs, and to compel the U.S. District Court to assess civil penalties. Courts are authorized to assess civil penalties of up to \$37,500 per day for each violation. *See* 42 U.S.C. § 7413(b), amended in part by the Debt Collection Improvement Act of 1996; 42 U.S.C. § 7413(e); 28 U.S.C. § 2461(a); 40 C.F.R. § 19.4; 74 Fed. Reg. 626 (Jan. 7, 2009). The violations set forth in this notice letter potentially number more than 35,000, meaning DG&T could be liable for civil penalties of more than \$1 billion dollars.

As explained, DG&T has violated and/or is in violation of numerous emission standards and limitations. Tens of thousands of violations have occurred and/or are continuing to occur at the Bonanza Plant. With this letter, the Uinta Basin Clean Air Coalition hereby provides notice to DG&T that it intends to file suit in federal court to enforce these violations if a resolution cannot be achieved within sixty days.

#### IV. Conclusion

DG&T continues to violate the Clean Air Act. The Uinta Basin Clean Air Coalition intends to file suit in federal court after 60 days to remedy these violations. The suit will seek declaratory relief, injunctive relief, the application of civil penalties, costs and fees, and any other relief that may be appropriate.

Further investigation is likely to reveal additional violations. The Uinta Basin Clean Air Coalition hereby retains the right to enforce any and all additional violations uncovered after the date of this notice letter.

Pursuant to 40 C.F.R. § 54.3(b), the full names and addresses of the persons giving notice to DG&T over the aforementioned violations of the Clean Air Act are as follows:

If you have questions regarding these allegations, believe that any of the above information is in error, or would like to discuss a settlement of this matter prior to the initiation of litigation, please contact Mike Harris, Counsel for WildEarth Guardians, at (303) 871-6140, and Frances C. Bassett, Counsel for the Ute Indian Tribe of the Uintah and Ouray Reservation and Business Committee at (303) 673-9600.

Sincerely,

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#### cc (with .pdf exhibits):

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David F. Crabtree, Esq. Registered Agent Deseret Generation and Transmission Co-Operative 10714 S. Jordan Pkwy. South Jordan, UT 84095 James Martin Regional Administrator U.S. Environmental Protection Agency Region 8 1595 Wynkoop St. Denver, CO 80202

Amanda Smith Executive Director Utah Department of Environmental Quality 195 North 1950 West, 4<sup>th</sup> Floor Salt Lake City, UT 84114

#### TABLE OF EXHIBITS

- 1. Utah Division of Air Quality, "Approval Order for Modification of Bonanza One Power Plant Emission Limits Change in Coal Pile Parameters, and Ruggedized Rotor Project" (March 16, 1998).
- 2. Letter from Ursula K. Trueman, Executive Secretary, Utah Air Quality Board to Stan Gordon, Deseret Generation & Transmission Co-operative, "Changes to the Scrubber Trays and Coal Pulverizers" (May 20, 1999).
- 3. Letter from Ursula K. Trueman, Executive Secretary, Utah Air Quality Board to Stan Gordon, Deseret Generation & Transmission Co-operative, "Changes to the Digital Control System and to the Burners" (Dec. 17, 1999).
- 4. Letter from DG&T to Utah Division of Air Quality, "Request for Approval Order for DG&T Bonanza Unit (1) Power Plant Emission Limits and Ruggedized Rotor Project, Uintah County" (1998).
- 5. Letter from DG&T to Utah Division of Air Quality, "Ruggedized Rotor and Pulverizer Replacement" (April 20, 1999).
- 6. Letter from Advanced Burner Technologies Corp. to DG&T, "Bonanza Unit #1 NOx Emissions with New Pulverizers" (Sept. 30, 1999).
- 7. *Modern Power Systems*, "Upgrading Bonanza: megawatts for nothing" (Oct. 1, 1999).
- 8. DG&T, Notice of Intent for Ruggedized Rotor Installation.
- 9. Letter from DG&T to Russell A. Roberts, Executive Secretary, Utah Air Quality Board, "Response to Utah Division of Air Quality's PSD Applicability/Major Modification Determination" (December 9, 1994).
- 10. Hourly Heat Input Values Spreadsheet, January 1, 2007-January 1, 2012.
- 11. Hourly NOx Emissions Spreadsheet, January 1, 2007-January 1, 2012.
- 12. Opacity Violations, January 1, 2007-January 1, 2012.