DESERET POWER
ELECTRIC COOPERATIVE

10714 South Jordan Gateway
South Jordan, Utah 84095
(801) 619-6500 Fax:(801) 619-6599

February 26, 2003

Mr. Richard R. Long
Director, Air program (Mail Code 8P-AR)
999 18th Street, Suite 300
Denver, Colorado 80202-2466

Mike Owens
USEPA Region 8 (Mail Code 8P-AR)
999 18th Street, Suite 300
Denver, Colorado 80202-2466

Re: Requested Emission Data; Bonanza Power Plant 2003 Maintenance Outage

Dear Mr. Long and Mr. Owens:

With this letter, Deseret Generation & Transmission Co-operative ("Deseret") hereby conveys certain emissions data previously requested pertaining to a certain rotor upgrade project at Deseret's Bonanza Power Plant in May 2000. The attached data summarizes the information that Deseret understands to have been requested. We understand that this information was requested in connection with Deseret's pending Title V permit application. Deseret provides this information subject to all of the comments previously submitted in connection with the Title V application process.

This letter is also to inform you of the 2003 maintenance outage scheduled for the Bonanza Power Plant. The purpose for the plant outage is to perform general maintenance on the plant equipment. During the outage, Deseret will, among other things, replace the voltage regulator in the generator and replace the bottom ash removal system with a new submerged flight conveying system. In addition, Deseret will install a series of monitoring equipment in and around the boiler in order to accommodate a so-called "intelligent" soot blowing system.

This maintenance outage will begin at midnight on April 4, 2003. The completion of the planned maintenance is expected to occur on approximately April 21, 2003. Deseret has scheduled two days at the conclusion of the outage to test the new equipment and complete the required testing of the unit for the Western Electric Coordinating Council (WECC). During this two days of testing, the unit will be on and off-line. The unit is expected to be fully on-line with the baghouse and scrubber in service on April 23, 2003.

The current voltage regulator has been in service for 17 years and will be replaced by a similar regulator of solid state design.

The current bottom ash removal system has also been in service for 17 years. Due to ordinary wear on the ash removal system, it makes rebuilding the system an unacceptable option. Deseret explored two options to replace the bottom ash system. The first option was to replace the system with the same type of system that is currently used. The second option was to change the system to a slightly different design, aimed to reduce the amount of wear on the replacement system.

The current ash removal system has two problems. First, the system is complicated and requires a lot of manual maintenance, primarily the sometimes dangerous process of breaking up larger chunks of ash (clinkers) created in the boiler. Given the current design and access points into the removal system, the large clinkers have to be broken up by hand, exposing workers to serious risk of injury. Several workers at the Bonanza plant have been injured as a result of this process during the past years.

After analyzing the current system, a submerged flight conveyor has been identified which will remove the bottom ash through a conveyor system. This system is less complicated and much safer than the current one, because it will automatically feed the large clinkers from the boiler, rather than relying on human intervention in the process, as the existing system does.

The current bottom ash removal system collects ash or pyrites from three sources. Heavy ash from the economizer section of the boiler is collected in hoppers. The ash from the economizer hoppers feed into the economizer ash storage silos. Pyrites from the pulverizers are collected in pyrite storage tanks. When the tanks are full, the pyrites are moved into the pyrite transfer tank. The third source of bottom ash is the heavy ash (clinkers) that falls through the bottom of the boiler. These clinkers are collected in the bottom ash storage hoppers. When an economizer ash storage silo, pyrite transfer tank or bottom ash storage silo is full, the contents of the tank are then slurried from the boiler area out to the ash de-watering bins in the sludge handling area. The bottom ash is then de-watered and conveyed out to the sludge/ash pile for disposal.

The new bottom ash submerged flight conveyor system will be much simpler in operation. The current pyrite system will move the pyrites directly from the pyrite hoppers to the submerged flight conveyor. Two dry flight conveyors will move the heavy ash from the economizer hoppers directly to the submerged flight conveyor. Bottom Ash from the bottom of the boiler will feed directly onto the submerged flight conveyor. The submerged flight conveyor will take the bottom ash/pyrites to the bottom ash belt conveyor. The bottom ash belt conveyor will then convey the ash outside the

boiler building to a temporary storage pile. From the temporary ash storage pile the ash will be loaded onto trucks and disposed of in a new ash storage pile.

The submerged flight conveyor system will allow the plant to abandon the pyrite transfer tank, economizer storage silos, bottom ash storage hoppers, ash slurry system, the de-watering bins and all the associated equipment.

The new ash handling system will not allow for any increase in plant production or cause any increases in stack emissions. Also, there will be no increase in fugitive emissions because the amount of bottom ash handled will not increase and the ash from the submerged flight conveyor will have a moisture content of 20% to 30%. The change simply represents an easier, less complicated and safer way to handle the bottom ash. Due to the fact that no increases in production or emissions will occur, no new source review will be required for the project.

In connection with the outage, Deseret will be placing certain thermal detection devices in and around the boiler, which will increase the flow of data/information from locations within and about the boiler. This data will be analyzed through a programmable logic controller, a software enabled device that will interface with the Plant's control system to operate the soot blowers. The primary purpose of this increased data flow will be to provide necessary inputs to better inform and assist operators in the timing and scope of soot blowing cycles on the Plant. This change will not result in any increase in emissions.

Any questions about the project should be directed to myself, as well as to Michael Goddard (435-781-5704) or Howard Vickers (435-781-5706). Deseret thanks Region 8 for its continuing support of the air quality programs at the Bonanza Plant.

Sincerely,

David Crabtree
Vice President, General Counsel

Enclosures

c: Stan Gordon, Bonanza Plant Manager

Deseret Generation & Transmission Co-operative
Emission Data – Bonanza Unit
Date of Physical/Operational Change (May 2000)

BASELINE DATA:

			SO2 DATA				NOx DATA				IMPUTED CO (CALCULATED)				PM-10			
Month	Coal Consumed Tons	Fuel Oil Consumed Gallons	SO2 Tons Monthly	SO2 Rolling 24-Month Total Tons	Minimum Net SO2 tpy Increase to determine Significance per 40 CFR 52.21(b)(23)	Baseline SO2 Emissions (tpy)	NOx Tons Monthly	NOx Rolling 24-Month Total Tons	Minimum Net NOx tpy Increase to determine Significance per 40 CFR 52.21(b)(23)	Baseline NOx Emissions (tpy)	Imputed CO Tons Monthly	Imputed CO Rolling 24-Month Total TPY	Minimum Net CO tpy Increase to determine Significance per 40 CFR 52.21(b)(23)	Baseline CO Imputed Emissions (tpy)	PM-10 Tons Monthly	PM-10 Rolling 24-Month	Minimum Net PM-10 tpy Increase to determine Significance per 40 CFR 52.21(b)(23)	Baseline PM-10 Emissions (tpy)
Jan-95	42377	96918	24.7				173.6				10.8				73.05			
Feb-95	91892	7158	53.2				436.1				23.0				19.62			
Mar-95	126744	3047	55.5				537.8				31.7				27.24			
Apr-95	130001	1610	65.2				734.6				32.5				27.80			
May-95	21913	1875	11.6				119.8				5.5				4.66			
Jun-95	2279	115374	1.9				9.0				0.9				178.07			
Jul-95	96977	47896	65.6				433.4				24.4				27.87			
Aug-95	133388	8496	97.8				705.9				33.4				59.21			
Sep-95	128322	22183	77.6				643.5				32.1				36.63			
Oct-95	129577	2139	80.5				600.0				32.4				27.91			
Nov-95	109488	8054	81.8				524.7				27.4				23.53			
Dec-95	80983	10895	49.4				345.5				20.3				16.78			
Jan-96	105897	11998	72.7				523.7				26.5				22.01			
Feb-96	85470	7896	59.6				454.1				21.4				19.14			
Mar-96	73206	9814	49.8				380.0				18.3				33.21			
Apr-96	81867	24756	64.7				468.4				20.5				43.85			
May-96	75692	24738	48.6				374.7				19.0				21.07			
Jun-96	97387	8941	66.2				560.4				24.4				20.51			
Jul-96	113431	7370	98.0				748.4				28.4				34.43			
Aug-96	136729	6048	115.9				949.8				34.2				35.34			
Sep-96	133688	2646	114.2				829.8				33.4				28.57			
Oct-96	134023	14772	98.6				709.5				33.5				36.83			
Nov-96	139063	2144	101.4				737.0				34.8				29.77			
Dec-96	145367	4316	105.7	830.1			645.8	6322.8			36.4	302.5			31.39	439.25		
Jan-97	110842	21500	73.4	854.5			474.1	6473.0			27.8	311.0			31.65	418.55		
Feb-97	94332	7145	62.9	859.3			453.1	6481.5			23.6	311.3			29.81	423.64		
Mar-97	124664	2885	90.9	877.0			660.4	6542.8			31.2	311.0			26.05	423.05		
Apr-97	129766	3080	100.1	894.5			714.5	6532.8			32.4	311.0			27.15	422.72		
May-97	63669	4913	48.1	912.7			321.4	6633.5			15.9	316.2			17.20	428.99		
Jun-97	101683	92069	79.5	951.5			326.6	6792.3			25.7	328.6			72.14	376.03		
Jul-97	135890	14460	105.7	971.6			467.3	6809.3			34.0	333.5			28.01	376.10		
Aug-97	141766	4913	108.5	976.9			528.2	6720.5			35.5	334.5			34.64	363.81		
Sep-97	140735	4018	111.9	994.1			463.8	6630.6			35.2	336.0			28.68	359.84		
Oct-97	147523	2149	130.7	1019.2			500.5	6580.9			36.9	338.3			29.61	360.69		
Nov-97	156580	3733	142.3	1049.4			578.6	6607.8			39.2	344.2			30.55	364.20		
Dec-97	161454	812	160.1	1104.8			646.7	6758.4			40.4	354.2			31.57	371.59		
Jan-98	155105	5508	153.7	1145.3			620.6	6806.8			38.8	360.3			46.68	383.93		
Feb-98	134385	2352	138.4	1184.7			643.0	6901.3			33.6	366.4			27.86	388.29		
Mar-98	140784	41114	126.5	1223.0			603.4	7013.0			35.3	374.9			71.47	407.42		
Apr-98	140606	16661	112.6	1247.0			525.3	7041.4			35.2	382.3			28.54	399.76		
May-98	134886	18038	115.9	1280.6			532.0	7120.0	40.0	**7160.0**	33.8	389.7			36.66	407.56		
Jun-98	126229	7253	115.4	1305.2			460.0	7069.9			31.6	393.3			25.63	410.12		
Jul-98	145363	15620	147.0	1329.7			587.0	6989.1			36.4	397.3			40.43	413.12		
Aug-98	148770	3332	140.7	1342.1			601.3	6814.9			37.2	398.8			30.50	410.70		
Sep-98	137282	6517	125.3	1347.7			547.3	6673.6			34.3	399.2			27.95	410.39		
Oct-98	136901	10653	113.1	1354.9			507.3	6572.5			34.3	399.6			27.95	405.95		
Nov-98	141400	3587	97.3	1352.9			588.9	6498.5			35.4	399.9			29.27	405.70		
Dec-98	150803	2963	109.0	1354.5			635.1	6493.2			37.7	400.5			30.50	405.25		
Jan-99	138756	20928	102.8	1369.2			482.2	6497.2			34.7	404.0			50.10	414.48		
Feb-99	135171	2095	90.5	1383.0			491.8	6516.5			33.8	409.1			27.93	413.54		
Mar-99	138989	20887	96.1	1385.6			509.1	6440.9			34.8	410.9			39.07	420.05		
Apr-99	119705	22433	89.4	1380.3			494.0	6330.6			30.0	409.7			57.76	435.35		
May-99	129271	3467	100.4	1406.4			560.8	6450.3			32.3	417.9			29.05	441.28		
Jun-99	111363	15787	76.9	1405.1	40.0	**1445.1**	392.9	6483.5			27.9	419.0	100.0	**519.0**	33.04	421.73		
Jul-99	120551	10140	85.2	1394.9			399.5	6449.6			30.2	417.1			32.69	424.07		
Aug-99	130856	2153	92.1	1386.7			415.7	6393.3			32.7	415.7			49.95	431.72		
Sep-99	124709	16819	88.6	1375.0			451.7	6387.3			31.2	413.7			25.65	430.21		
Oct-99	142503	13991	110.3	1364.8			515.7	6394.9			35.7	413.1			41.69	436.25		
Nov-99	140533	6545	108.2	1347.8			504.5	6357.8			35.1	411.1			28.68	435.31		
Dec-99	134551	5981	94.3	1314.9			486.1	6277.5			33.7	407.8			29.12	434.09		
Jan-00	73021	112938	55.6	1265.8			230.2	6082.3			18.5	397.7			103.74	462.62	**15.00**	**477.62**

POST-CHANGE DATA:

Month	Coal Consumed	Fuel Oil Consumed	SO2 DATA: SO2 Tons Monthly	SO2 DATA: Post-Change Annual Avg. SO2 Emissions (tpy)	NOx DATA: NOx Tons Monthly	NOx DATA: Post-Change Annual Avg. NOx Emissions (tpy)	IMPUTED CO (CALCULATED): Imputed CO Tons Monthly	IMPUTED CO (CALCULATED): Post-Change Annual Avg. CO Emissions (tpy)	PM-10: PM-10 Tons Monthly	PM-10: Post-Change Annual Avg. PM10 Emissions
Jun-00	74101	172631	60.0		274.0		19.0		14.16	
Jul-00	131097	60378	103.2		520.0		32.9		24.17	
Aug-00	160177	65802	115.4		777.8		40.2		29.43	
Sep-00	127362	65589	92.6		605.0		32.0		23.43	
Oct-00	165823	31171	114.8		661.1		41.5		29.88	
Nov-00	169776	9761	110.6		654.4		42.5		31.10	
Dec-00	147333	55810	100.2		535.6		37.0		26.91	
Jan-01	172477	1669	118.5		625.5		43.1		34.21	
Feb-01	152970	10620	90.7		551.5		38.3		31.64	
Mar-01	162425	21572	101.8		551.3		40.7		34.46	
Apr-01	167007	50653	97.3		540.7		41.9		33.04	
May-01	169113	9992	105.9	**1211.1**	579.4	6876.2	42.3	451.3	28.60	341.03
Jun-01	162632	9489	96.3		592.2		40.7		29.96	
Jul-01	165634	17925	92.9		574.2		41.5		44.59	
Aug-01	165293	23773	96.7		621.7		41.4		40.95	
Sep-01	155241	5011	103.9		616.1		38.8		26.31	
Oct-01	158401	33239	103.5		563.5		39.7		27.09	
Nov-01	166838	10966	89.2		540.4		41.7		28.21	
Dec-01	176253	14613	110.2		626.9		44.1		30.59	
Jan-02	173683	29794	76.7		620.8		43.5		68.94	
Feb-02	156127	1197	83.8		553.4		39.0		9.01	
Mar-02	148445	19465	84.4		558.1		37.2		12.66	
Apr-02	167298	1588	92.5		615.0		41.8		9.70	
May-02	169761	18096	74.7	1104.8	572.2	**7054.6**	42.5	**491.9**	14.01	**342.02**
Jun-02	168999	1371	85.1		559.0		42.3		9.65	
Jul-02	178251	8555	92.5		595.3		44.6		12.12	
Aug-02	184203	1649	69.9		653.0		46.1		9.93	
Sep-02	170032	2103	65.8		539.4		42.5		9.41	
Oct-02	179124	1662	81.3		473.9		44.8		9.88	
Nov-02	173142	24945	63.7		466.0		43.3		13.09	
Dec-02	172225	24779	72.0		470.0		43.1		20.88	

NOTES:

1. This data was derived using the quarterly CEMS data.

2. The SO2 is from the 310 records.

3. The NOx data is from the 201 and 220 records.

4. CO data was calculated using AP-42 Emission factors for coal fired plants of .5 lbs/ton of coal burned and 5 lbs/1000 gallons of fuel oil burned. This information is provided solely at the request of EPA – By providing the calculation listed herein, Deseret does not thereby acquiesce that the result of this calculation based on published emissions factors is necessarily representative of actual CO emissions nor does Deseret necessarily concur that the use of such factors is appropriate here.

5. PM-10 data for 1995-1998 was calculated using an average of the 1994 and 1999 stack test data for the filter catch (.010+.006/2=.008) and the AP-42 emission factor for coal fired power plants for condensables of 0.02 lbs/mmBtu. (see commentary in note 4 above)

6. Particulate emissions for 1999, 2001 and 2002 were calculated using the actual stack test data. Particulate emissions for June through December 2000 were adjusted to exclude periods of shut-down, and start-up associated with highly unusual boiler tube leaks (not related to the rotor change), representing unit trip frequencies not experienced during the baseline period, but which the Unit could have accomodated prior to the date of the physical/operational change (see commentary in note 8 below). Particulate emissions for 2001 were calculated using the method 5 stack test results added to the AP-42 condensables emission factor. (see commentary in note 4 above)

7. May data for 2000 was excluded because the unit was off-line during the entire month.

8. All Post-change data are presented without reducing various emissions by the amount of emissions that could have been accomodated during the baseline period and which are not related to the physical/operational change, except as noted in note 6 above. Deseret reserves with respect to the actual amount of emissions for each classification which should be deducted from post-change data on account of any other non-related physical/operational change.