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October 30, 2019

Federal Express

Kerwin C. Singleton
Planning Section Chief
New Mexico Environment Department
Air Quality Bureau
525 Camino de los Marquez, Suite 1
Santa Fe, NM 87505

RE: Four-Factor Analysis on Control Measures Under the Clean Air Act Regional Haze Program
Enterprise Field Services, LLC
South Carlsbad Compressor Station

Mr. Singleton:

Please find enclosed Enterprise Field Services, LLC ("Enterprise") analysis of control measures for the South Carlsbad Compressor Station in Eddy County, New Mexico, as requested by the NMED by letter dated July 18, 2019.

Enterprise's submittal of a similar control measure analysis for the Chaco Gas Plant and Blanco C&D Compressor Station will follow by November 15, 2019, per the NMED's October 29 letter granting additional time for Enterprise to submit the analysis for those facilities.

In addition, Enterprise may supplement its submittal of the control measure analyses with legal comments, which would be integral to Enterprise's position on the appropriateness of the control measures analyzed for all three facilities. For convenience and to avoid duplication, we would include the legal comments with our November 15 submittal.

If you have questions or require additional information, please contact me at (713) 381-6698 or by email at rmhavalda@eprod.com or Bradley Cooley at (713) 381-5828.

Thank you,

Robert Havalda, P.E
Senior Engineer, Environmental

Bradley J. Cooley, P.E.
Senior Manager, Environmental

/kna
Attachment

REGIONAL HAZE FOUR-FACTOR ANALYSIS

Enterprise Field Services, LLC, South Carlsbad Compressor Station

Prepared By:

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November 2019

Project 193201.0181

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1. EXECUTIVE SUMMARY

In the 1977 amendments to the Clean Air Act (CAA), Congress set a nation-wide goal to restore national parks and wilderness areas to natural conditions by remedying existing, anthropogenic visibility impairment and preventing future impairments. On July 1, 1999, the U.S. Environmental Protection Agency (EPA) published the final Regional Haze Rule (RHR). The objective of the RHR is to restore visibility to natural conditions in 156 specific areas across with United States, known as Federal Class I areas. The CAA defines Class I areas as certain national parks (over 6,000 acres), wilderness areas (over 5,000 acres), national memorial parks (over 5,000 acres), and international parks that were in existence on August 7, 1977. EPA has since amended the RHR in certain respects, most recently on January 10, 2017.

The RHR requires states to set goals that provide for reasonable progress towards achieving natural visibility conditions for each Class I area in their jurisdiction. In establishing a reasonable progress goal for a Class I area, the states, among other things:

(A) *"[E]valuate and determine the emission reduction measures that are necessary to make reasonable progress by considering the costs of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts of compliance, and the remaining useful life of any potentially affected anthropogenic source of visibility impairment" and "include in [the state's] implementation plan a description of the criteria it used to determine which sources or groups of sources it evaluated and how the four factors were taken into consideration in selecting the measures for inclusion in its long-term strategy."* 40 CFR 51. 308(f)(2)(i). This is known as a four-factor analysis.

(B) Analyze and determine the rate of progress needed to attain natural visibility conditions by the year 2064. To calculate this rate of progress, the State must compare baseline visibility conditions to natural visibility conditions in the mandatory Federal Class I area and determine the uniform rate of visibility improvement (measured in deciviews) that would need to be maintained during each implementation period in order to attain natural visibility conditions by 2064. In establishing the reasonable progress goal, the State must consider the uniform rate of improvement in visibility and the emission reduction. 40 CFR 51. 308(f)(1). The uniform rate of progress or improvement is sometimes referred to as the "URP" or the glidepath and is considered in the process of developing the state's Long Term Strategy (LTS).

The second implementation, or planning, period (2019-2028) for national regional haze efforts is currently underway. There are a few key distinctions from the processes that took place during the first planning period (2004-2018). Most notably, the second planning period analysis distinguishes between natural or biogenic and manmade or anthropogenic sources of emissions. Using a Photochemical Grid Model (PGM), the Western Regional Air Partnership (WRAP), in coordination with the EPA, is tasked with comparing anthropogenic source contributions against natural background concentrations. EPA has issued guidance to states for development of State Implementation Plans (SIPs) for regional haze requirements for the second planning period.[1],[2]

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[1] U.S. EPA, Guidance on Regional Haze State Implementation Plans for the Second Implementation Period, EPA-457/B-19-003 (Aug. 2019); U.S. EPA, Technical Guidance on Tracking Visibility Progress for the Second Implementation Period of the Regional Haze Program, EPA-454/R-18-010 (Dec. 2018).

[2] U.S. EPA, Technical Support Document for EPA's 2028 Regional Haze Modeling (Sept. 2019).

Pursuant to 40 CFR 51.308(f)(2), the states are responsible for identifying sources that contribute to the most impaired days in the Class I areas. To accomplish this, the New Mexico Environment Department (NMED) reviewed 2016 emission inventory data for Title V sources and screened each facility's potential impact on visibility in Class I areas using a "Q/d" analysis, where "Q" is the magnitude of emissions that could impact ambient visibility and "d" is the distance of a facility to a Class I area. The NMED defined a source with a high potential for visibility impairment as one with a "Q/d" greater than 5.5. From this analysis, 24 facilities were identified by the NMED. On July 18, 2019, the NMED informed Enterprise Field Services, LLC (Enterprise) that its facility, the South Carlsbad Compressor Station, was identified as one of the sources potentially contributing to regional haze at the Carlsbad Caverns Class I area.

In coordination with guidance provided by WRAP, the NMED devised criteria to determine specific equipment that is subject to the four-factor analysis. The NMED's July 18, 2019 notification letter to Enterprise specifies that any equipment with a potential to emit (PTE) greater than 10 pounds per hour (lb/hr) and 5 tons per year (tpy) of Nitrogen Oxides (NO_X) or Sulfur Dioxide (SO_2) shall be included in this analysis. The equipment at the facility that is subject to this analysis, the PTE associated with that equipment, and the applicability of a four-factor analysis for each pollutant are reported in Table 1.

Table 1. Summary of Equipment and Applicability to a Four-Factor Analysis

Equipment	NO_X Hourly PTE (lb/hr)	NO_X Annual PTE (tpy)	NO_X Subject to Analysis? (Yes/No)	SO_2 Hourly PTE (lb/hr)	SO_2 Annual PTE (tpy)	SO_2 Subject to Analysis? (Yes/No)
Solar Centaur T4702 Turbines (Units 1 and 2)	27.0	90.8	Yes	<1.0	2.2	No

Once the applicability of process equipment and pollutants has been determined, potential retrofit control technologies must be identified. One of the reference sources that the NMED has suggested consulting is the Reasonably Available Control Technology (RACT) / Best Available Control Technology (BACT) / Lowest Achievable Emission Reduction (LAER) Clearinghouse (RBLC). In order to determine the most relevant and current retrofit controls available, the RBLC was queried for the previous ten years. Summaries of the result of this search are provided and discussed in Section 2 of this report. The facility engineers then reviewed the list of available retrofit technologies and performed a technical feasibility assessment for each control option. The four-factor analysis was then conducted for those controls that are technically feasible at the South Carlsbad Compressor Station site.[3]

Based on the technical and economic factors summarized in this report, Enterprise has provided recommendations for the NMED in its efforts to design, in coordination with WRAP, the SIP under the Regional Haze Rule.

[3] NMED 2021 Regional Haze Planning Website ("Links to other information"). https://www.env.nm.gov/air-quality/reg-haze/

2.1. COMBUSTION TURBINES

Two of South Carlsbad's natural gas-fired turbines (Units 1 and 2) are subject to this four-factor analysis due to their NO_X emission rates.

2.1.1. Combustion Turbine Background

A gas turbine is an internal combustion engine that operates with a rotary, rather than reciprocating, motion and is composed of three primary components: a compressor, a combustor, and a power turbine. The compressor draws in ambient air and compresses it up to 30 times the ambient pressure, then directs it into the combustor, where fuel is introduced, ignited, and burned. Exhaust gas from the combustor is then diluted with additional air and sent to the power turbine at temperatures of up to 2600 °F. The hot exhaust gas expands in the power turbine section, generating energy in the form of shaft horsepower.[4]

The treatment of the exhaust gases exiting the turbine dictates the cycle designation of these units. The heat content can either be discarded without heat recovery (simple cycle); recovered with a heat exchanger to preheat combustion air entering the combustor (regenerative cycle); recovered in a heat recovery steam generator to raise process steam, with or without supplementary firing (cogeneration); or recovered, with or without supplementary firing, to raise steam for a steam turbine Rankine cycle (combined cycle or repowering).[5] The units at South Carlsbad are regenerative cycle turbines, which are essentially simple cycle gas turbines with an added heat exchanger.

NO_X is formed via three fundamentally different mechanisms. The principal NO_X formation mechanism, thermal NO_X, arises from the thermal dissociation and subsequent reaction of nitrogen (N_2) and oxygen (O_2) molecules during combustion. Most thermal NO_X forms in the highest temperature regions of the combustion chamber. The second NO_X formation mechanism, fuel NO_X, arises from the evolution and reaction of fuel-bound nitrogen compounds with oxygen. The final NO_X formation mechanism, prompt NO_X, arises from early reactions of nitrogen intermediaries and hydrocarbon radicals in fuel.

The significance of prompt NO_X is negligible in comparison to thermal and fuel NO_X. Fuel NO_X will also be negligible for South Carlsbad's turbines assessed here, as these combustion turbines fire natural gas, which contains a negligible amount of nitrogen compounds. Therefore, this analysis will focus on thermal NO_X.

The PTE from each turbine is reported in the facility's New Source Review (0220-M10R1) and Title V (P130-R3) permits and is summarized in Table 1.

2.1.2. Potential NO_X Controls for a Combustion Turbine

There are three general methods of controlling NO_X emissions from gas turbines; (1) wet controls, which use steam or water injection to reduce combustion temperatures and NO_X formation, (2) dry controls that use

[4] U.S. EPA, AP-42, Section 3.1, "Stationary Gas Turbines."

[5] Ibid.

advanced combustor design to suppress NO_X formation, and (3) post-combustion, catalytic controls to selectively reduce NO_X.[6]

The categories of retrofit control equipment identified for combustion turbines during a comprehensive review of the RBLC are reported in Table 2. A detailed discussion, including a description, the technical feasibility, and the anticipated performance of each control, is provided below.

Table 2. Potential Control Options for Combustion Turbines

Control Equipment	Technically Feasible	NO_X Control Efficiency
Good Combustion Practices	**Base Case**	**N/A**
SoloNOx	**Yes**	**64%**
Water/Steam Injection	**No**	**N/A**
Selective Catalytic Reduction	**No**	**N/A**

2.1.2.1. Good Combustion Practices

NO_X emissions are caused by oxidation of nitrogen gas in the combustion air during fuel combustion. This occurs due to high combustion temperatures and insufficiently mixed air and fuel in the cylinder where pockets of excess oxygen occur. Applying concepts from engineering knowledge, experience, and the manufacturer's recommendations, good combustion practices for operation of the units can be developed and maintained by training maintenance personnel on equipment maintenance, routinely scheduling inspections, conducting overhauls as appropriate for the equipment involved, and using pipeline quality natural gas. If good combustion practices are maintained, the unit will operate as intended with the lowest NO_X emissions.

Utilizing good combustion practices and fuel selection was identified in this review of the RBLC for the control of NO_X emissions from combustion turbines; therefore, it has been determined that this method of NO_X control is feasible for the units at South Carlsbad. However, these practices are currently in use at South Carlsbad, as required by various conditions in its Title V and NSR permit authorizations. No further assessment of these control practices has been included in this report.

2.1.2.2. SoloNOx

The key factors in thermal NO_X formation are the combustion temperature and the residence time of fuel in the combustor. SoloNO_X reduces NO_X emissions by reducing both of these factors. Ultimately, this is accomplished by optimizing the air-to-fuel ratio. According to information received from Solar, SoloNOx can reduce NO_X exhaust concentrations to 25 ppmv on the Centaur T4702 units.

2.1.2.3. Water/Steam Injection

Water or steam injection is a technology that has been demonstrated to effectively suppress NO_X emissions from gas turbines. The effect of steam and water injection is to increase the thermal mass by dilution and thereby reduce peak temperatures in the flame zone. With water injection, there is an additional benefit of absorbing the

[6] Ibid.

latent heat of vaporization from the flame zone. Water or steam is typically injected at a water-to-fuel weight ratio of less than one.

Enterprise received information from Solar stating that the Centaur T4702 units cannot support steam injection and that they do not offer water injection equipment. They also stated that, while a third-party vendor may be able to develop water injection controls for the turbines, that this control may impose a risk of damaging this equipment and that any damage caused by water injection would not be covered under the equipment's warranty. Based on the statements from Solar regarding the installation of water and steam injection, Enterprise does not consider this control technically feasible.

2.1.2.4. Selective Catalytic Reduction Systems

Selective Catalytic Reduction (SCR) is the process by which a nitrogen-based reagent, such as ammonia or urea, is injected into the exhaust stream at a point downstream of a combustion unit. Within a reactor vessel containing a metallic or ceramic catalyst, the injected reagent reacts selectively with the NO_X in the exhaust to produce molecular nitrogen (N_2) and water (H_2O).[7] The chemical reactions for this process are shown in the equations below.

$$4\,NO + 4\,NH_3 + O_2 \rightarrow 4\,N_2 + 6\,H_2O \qquad \text{(Equation 1)}$$
$$2\,NO_2 + 4\,NH_3 + O_2 \rightarrow 3\,N_2 + 6\,H_2O \qquad \text{(Equation 2)}$$

An SCR system includes the catalyst, catalyst housing, reagent storage tank, reagent injector, reagent pump, pressure regulator, and electronic control system. The electronic controls regulate the quantity of reagent injected as a function of turbine load, speed, and temperature, so NO_X emissions reductions can be achieved. The lifespan of the catalyst is primarily determined by poisoning of active sites by flue gas constituents, thermal sintering, or compacting, of active sites due to high temperatures in the reactor; fouling caused by ammonia-sulfur salts and particulate matter in the gas; and erosion due to high gas velocities.[8]

Typically, a small amount of ammonia is not consumed in the reactions and is emitted in the exhaust stream. These ammonia emissions are referred to as ammonia slip. Unreacted ammonia in the exhaust can form ammonium sulfates, which may plug or corrode downstream equipment. Particulate-laden streams may blind the catalyst and may necessitate the application of a soot blower.[9]

In order for the SCR system to function properly, the exhaust gas must be within a particular temperature range (typically between 450 °F and 850 °F), dependent on the material of the catalyst. Exhaust gas temperatures greater than the upper limit will cause the NO_X and ammonia to pass through the catalyst unreacted.[10]

The South Carlsbad facility was designed and constructed without considerations for the installation of SCRs in mind. An onsite evaluation was conducted at the South Carlsbad facility during which measurements were taken of any feasible locations for SCR equipment. These measurements took into consideration the amount of buffer space needed to maintain accessibility to equipment and to not compromise worker safety. Based on size estimates of SCR units provided by CECO-Peerless, Enterprise determined that it is not possible to install these units.

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[7] U.S. EPA, Office of Air Quality Planning and Standards, "Air Pollution Control Technology Fact Sheet (Selective Catalytic Reduction (SCR))," EPA-452/F-03-032.
[8] Ibid.
[9] Ibid.
[10] U.S. EPA, AP-42, Section 3.1, "Stationary Gas Turbines."

Enterprise has evaluated the costs of implementing the technically feasible control technologies at South Carlsbad as thoroughly as possible in the time provided to complete this assessment. The cost estimates presented below are calculated according to methods and recommendations described in the EPA Air Pollution Control Cost Manual.[11]

Emission inventory data and stack test data from 2016 were used to assess the baseline emissions for these units.

3.1. TURBINE CONTROLS

Table 3. Cost Analysis Summary of Technically Feasible Controls for Turbines

Control Equipment	Unit No.	Cost Effectiveness	Cost Factors
SoloNOx	1	$8,583.57 per ton	Equipment costs, routine overhaul and labor costs
	2	$6,629.15 per ton	

3.1.1. SoloNOx

For the Solar Centaur T4702 turbines (Units 1 and 2), Enterprise received a capital cost estimate from Solar for the SoloNOx control equipment. Total installed cost is estimated to be $1,342,700 per unit. Based on additional information from Solar regarding overhaul costs for these units, Enterprise estimates other associated annual operating costs to be approximately $37,756 per unit. The expected useful life of this control equipment is 20 years. Based on the target NOx exhaust concentration of 25 ppm provided by Solar, the expected control efficiencies associated with SoloNOx are 64% and 66% for Units 1 and 2, respectively. The control would reduce the annual NO_x emissions of unit 1 and 2 by 20.8 tons and 26.9 tons, respectively. This results in an amortized cost effectiveness of $8,583.57 and $6,629.15 per ton of NO_x reduction for Units 1 and 2, respectively.

[11] U.S. EPA, "Air Pollution Control Cost Manual," available at: https://www.epa.gov/economic-and-cost-analysis-air-pollution-regulations/cost-reports-and-guidance-air-pollution#cost%20manual

4. TIME NECESSARY FOR COMPLIANCE

The second factor in this analysis is the time necessary for compliance. Consideration of this factor involves estimating the time required for a source to implement a potential control measure. This information is provided here in order to advise the NMED of Enterprise's projection of a reasonable compliance timeline based on the equipment and site-specific considerations that could affect the time necessary to comply.

Enterprise estimates that up to 3 to 4 years will be needed to budget, design, procure, and construct any of the control measures discussed in this report.

5. ENERGY AND NON-AIR QUALITY ENVIRONMENTAL IMPACTS OF COMPLIANCE

5.1. TURBINE CONTROLS

5.1.1. SoloNOx

This section addresses the potential energy and non-air environmental impacts that installation of the technically feasible control options impose on a source. The consideration of energy impacts involves assessing the impact of a control measure on the energy that is consumed by the source. Non-air environmental impacts are assessed based on the effect of the control on non-air environmental media. Some examples of non-air environmental impacts include water resource depletion, solid waste generation, increased noise and odor pollution, and increased land usage.

There are no anticipated unique or site-specific energy or non-air quality environmental impacts from installation and operation of SoloNOx on the South Carlsbad turbines.

6.1. TURBINE CONTROLS

6.1.1. SoloNOx

The anticipated remaining useful life of each source is addressed here for the NMED's consideration. The assessment of this factor involves estimating how long the sources analyzed will remain in operation and the lifetime of potential control measures, accounting for equipment and site-specific limitations.

40 CFR Part 51, Appendix Y includes guidance on the characterization of this factor, stating that the remaining useful life of a source will typically be longer than the useful life of the emission control system. Therefore, it is appropriate to annualize compliance costs based on the useful life of the control equipment, rather than the life of the source.[12]

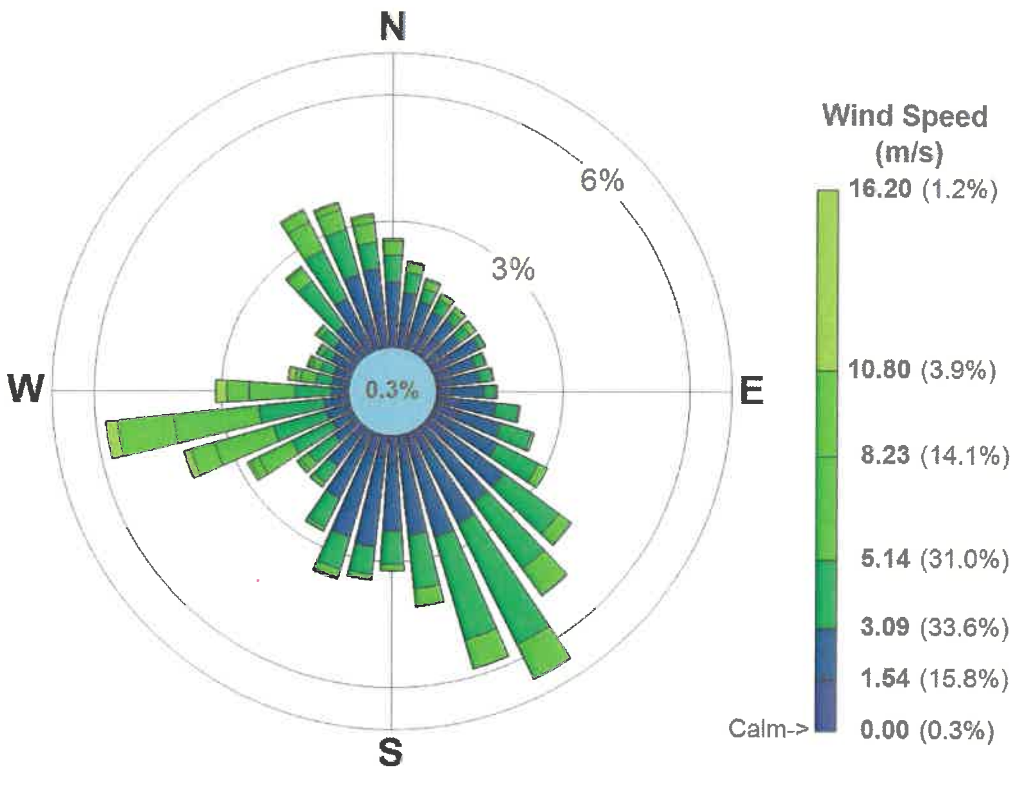
The estimated useful life of a SoloNO$_X$ control is 20 years. This estimate has been incorporated in the cost analysis section to calculate the total annualized cost of the control.

[12] 40 CFR 51, Appendix Y, Section II.B.4.f

Enterprise does not believe implementing any of the evaluated controls would improve visibility in nearby Class I areas based on climatological data and ambient pollutant data.

The South Carlsbad Compressor Station is located approximately 16.2 miles from the Carlsbad Caverns Class I area at a wind vector range of approximately 60 degrees to 70 degrees (NE). According to 2017 meteorological data collected in Carlsbad presented in Figure 1, wind only blows from this direction at a frequency of 1.4% or approximately 120 hours per year. Moreover, over the 16 miles of transport, pollutants would undergo significant dispersion. While full dispersion and photochemical modeling would need to be conducted to more accurately evaluate South Carlsbad's impact, based on this evidence, the facility's impact on visibility is likely insignificant.

Figure 1. A Windrose Reporting 2017 Wind Direction and Speed in Carlsbad, NM



Additionally, according to aerosol composition data reported on visibility impaired periods at the Carlsbad Caverns National Park IMPROVE Monitor, the main contributing pollutant to regional haze is ammonium sulfate.[13] Therefore, installing NO_X controls on the units at South Carlsbad would not significantly improve visibility.

Based on a comprehensive review of the RBLC, available literature, and manufacturer's input on the available control technologies for the natural-gas fired turbines located at the South Carlsbad Compressor Station, Enterprise has determined that it is not technically feasible or cost effective to implement any controls on equipment at this time, particularly given the expected insignificant impact at Carlsbad Caverns National Park.

[13] 2007 to 2017 Regional Haze Trends (https://www.env.nm.gov/wp content/uploads/sites/2/2019/02/2000 2017 trends-in-NM.pdf

8. SUPPORTING DOCUMENTATION

Enterprise Field Services, LLC
South Carlsbad Compressor Station

Solar Centaur T4702 Turbines	Interest Rate:	8.38%		
Unit 1				
	$SoloNO_x$ Period:	20	years	
Base Emissions				
NO_x ppm:		69.6	ppm	<-- From 2016 Stack Test Data
NO_x lb/hr:		7.59	lb/hr	<-- From 2016 Stack Test Data
Hours of Operation:		8544	hrs	<-- From 2016 Emission Inventory Data
NO_x tpy:		32.42	tpy	<-- Calculated
$SoloNO_x$				
NO_x guarantee:		25	ppm	<-- From Solar
NO_x lb/hr:		2.73	lb/hr	
NO_x tpy:		11.64	tpy	
Total Cap Investment	$	1,342,700		<-- Equipment, installation, engineering, and inspection costs
Annualized TCI:	$	140,631		<-- Based on interest rate, year and TCI
Annual O&M Costs:	$	37,756		<-- Routine overhaul and labor costs
Total Annual Costs:	$	178,387		
Emissions Reduction:		20.78	tpy	
Cost Effectiveness:	**$**	**8,583.57**	**$/ton**	

Enterprise Field Services, LLC

South Carlsbad Compressor Station

Solar Centaur T4702 Turbines	Interest Rate:	8.38%	
Unit 2			
	$SoloNO_x$ Period:	20 years	
Base Emissions			
NO_x ppm:		73.4 ppm	<-- From 2016 Stack Test Data
NO_x lb/hr:		9.55 lb/hr	<-- From 2016 Stack Test Data
Hours of Operation:		8544 hrs	<-- From 2016 Emission Inventory Data
NO_x tpy:		40.80 tpy	<-- Calculated
$SoloNO_x$			
NO_x guarantee:		25 ppm	<-- From Solar
NO_x lb/hr:		3.25 lb/hr	
NO_x tpy:		13.89 tpy	
Total Cap Investment	$	1,342,700	<-- Equipment, installation, engineering, and inspection costs
Annualized TCI:	$	140,631	<-- Based on interest rate, year and TCI
Annual O&M Costs:	$	37,756	<-- Routine overhaul and labor costs
Total Annual Costs:	$	178,387	
Emissions Reduction:		26.91 tpy	
Cost Effectiveness:	**$**	**6,629.15 $/ton**	

Four Factor Analysis for Natural Gas Fired Turbines – NO_x

	Control Technology	Selective Catalytic Reduction (SCR)[a]	Water/Steam Injection[b]	Improved Combustion Technology (Low-NO_x Combustors, Ultra-Low NO_x Combustors and other improved combustion technology)	Good Combustion Technique
IDENTIFY AIR POLLUTION CONTROL TECHNOLOGIES	Control Technology Description	A nitrogen-based reagent (e.g., ammonia, urea) is injected into the exhaust stream downstream of the combustion unit. The reagent reacts selectively with NO_x to produce molecular N_2 and water in a reactor vessel containing a metallic or ceramic catalyst.	Injected water/steam acts as a heat sink, lowering combustion zone peak temperatures, resulting in a decrease in thermal NO_x.	Low-NO_x burners (or SoloNOx) employ multi-staged combustion to inhibit the formation of NO_x. Primary combustion occurs at lower temperatures under oxygen-deficient conditions; secondary combustion occurs in the presence of excess air.	NO_x emissions are caused by oxidation of nitrogen gas in the combustion air during fuel combustion. Primary combustion occurs at lower temperatures under oxygen-deficient conditions. By following EPA's "Good Combustion Practices" guidance document, good combustion practices can be maintained by training maintenance personnel on equipment maintenance, routinely scheduling inspections, conducting overhauls as appropriate for equipment involved, and using pipeline quality natural gas. By maintaining good combustion practices the unit will operate as intended with the optimal NO_x emissions.
	Other Considerations	Typically, a small amount of ammonia is not consumed in the reactions and is emitted in the exhaust stream. These ammonia emissions are referred to as "ammonia slip." Unreacted reagent may form ammonium sulfates which may plug or corrode downstream equipment. Particulate-laden streams may blind the catalyst and may necessitate the application of a soot blower.	Results in a small efficiency penalty but an increase in power output. May increase CO and VOC emissions. Not available in certain models.	N/A	N/A
	RBLC Database Information	Included in RBLC for the control of NO_X emissions from combustion turbines.	Included in RBLC for the control of NO_X emissions from combustion turbines.	Included in RBLC for the control of NO_X emissions from combustion turbines.	Included in RBLC for control of NOx emissions from combustion turbines.
ELIMINATE TECHNICALLY INFEASIBLE OPTIONS	Feasibility Discussion	Technically infeasible due to space limitations a the faciltiy.	Technically infeasible since this option is not available for the turbine model.	Technically feasible.	Base case.

a. U.S. EPA, Office of Air Quality Planning and Standards, "Air Pollution Control Technology Fact Sheet (Selective Catalytic Reduction (SCR))," EPA-452/F-03-032.
b. U.S. EPA, AP-42 Section 3.1, "Stationary Gas Turbines"
c. California EPA, Air Resources Board, "Section 311 - Non-Selective Catalytic Reduction and Other NO_X Controls," http://www.arb.ca.gov/cap/manuals/cntrldev/sncr_etc/311nscr.htm

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