

## Technical Support Document

Synthetic Minor Source Permit  
for  
The Pueblo of Sandia Resort and Casino  
Permit Number: R6NSR-NM-001  
SIC 7993, NACIS 713210  
November 2015

### I. SUMMARY

This document serves as the technical support document that provides an analysis of the application and provides the legal and factual basis for the Pueblo of Sandia's Sandia Resort and Casino (Sandia) draft permit conditions with references to the statutory or regulatory provisions, including provisions under 40 CFR §§ 49.151-49.161, that would apply if the permit is finalized. This document is intended for use by all parties interested in the permit.

Sandia reported the operation of its facilities to EPA, in response to the requirements of the Potential to Emit (PTE) Transition Policy for Part 71 Implementation in Indian Country by John Seitz and Eric Schaeffer<sup>1</sup>. Sandia has reported that it operates three stationary reciprocating internal combustion engines (RICE) and power generators, seventeen boilers, and three diesel storage tanks at its facility on the Pueblo of Sandia. In this permit application, Sandia proposes to add two new 4000 kW emergency stationary internal combustion engines (ICE) and power generators, subject to the requirements of 40 CFR Part 60, Subpart IIII, and three new diesel storage tanks; in addition, Sandia will limit operation of the three existing RICE units in order to meet the requirements of emergency stationary RICE under 40 CFR Part 63, Subpart ZZZZ. The existing generators are limited to 100 hours/year non-emergency operation for each generator, and the two new 4000 kW emergency stationary ICE are limited to 100 hours/year for each unit for readiness testing; the emission limitations are designed to meet the regulatory conditions necessary for the treatment of the Sandia Resort and Casino as a tribal synthetic minor source.

On September 4, 2012, EPA Region 6 received a synthetic minor permit application from Sandia for the existing RICE units and it was amended on August 12, 2014, to include two new emergency stationary ICE units and three new diesel storage tanks. Sandia is an existing source located in Indian Country and within the borders of New Mexico. Sandia's amended application was submitted pursuant to 40 CFR § 49.158 and is deemed complete on receipt of all necessary information or at the time of public notice whichever comes first.

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<sup>1</sup> 1999 Potential to Emit (PTE) Transition Policy for Part 71 Implementation in Indian Country by John Seitz and Eric Schaeffer available at: <http://www.epa.gov/region07/air/title5/t5memos/indian6.pdf>

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**II. REGULATORY APPLICABILITY****a. Synthetic Minor Permit Requirements**

On July 1, 2011, the EPA promulgated a Federal Implementation Plan (FIP) under the authority provided by the Clean Air Act. The FIP includes two New Source Review (NSR) regulations for the protection of air resources in Indian Country. The first rule applies to new and modified minor stationary sources (minor sources) and to minor modifications at existing major stationary sources (major sources) throughout Indian country. The second rule (nonattainment major NSR rule) applies to new and modified major sources in areas of Indian Country that are designated as not attaining the National Ambient Air Quality Standards (NAAQS). Currently, EPA directly implements these rules on reservation lands within Region 6, which includes Pueblos and tribally-owned trust lands.

More specifically, 40 CFR § 49.158 codifies the final NSR rule which requires existing sources operating under the EPA's 1999 transition memorandum (Transition Policy Memo)<sup>1</sup>, to submit a synthetic minor permit application to the Regional office by September 4, 2012. The Transition Memo allowed for treatment of a major source for the purposes of the Federal Operating Permits Program (Part 71) as a minor source if its actual emissions remained below 50 percent of the potential to emit (PTE) thresholds for major source status, for every consecutive 12-month period (beginning with the 12 months immediately preceding March 1999). The Transition Memo states that records demonstrating actual emissions are at or below 50% PTE should be maintained until such time that EPA promulgates the minor (NSR) regulatory requirements in Indian Country. The Transition Memo specifies that the PTE transition policy will terminate

when EPA adopts and implements a mechanism that can be used to limit PTE or EPA explicitly provides such a mechanism. Since the FIP for Indian Country creates a new minor NSR regulatory program and implements a permit mechanism that can be used to limit PTE, the PTE transition policy has been terminated by EPA. Per 40 CFR § 49.158, Sandia submitted a permit application to EPA Region 6 on September 4, 2012.

Based upon information contained in the original 2012 and the 2014 amended applications submitted by Sandia, we find that absent any restrictions on its PTE, the source would have the potential to emit regulated NSR pollutants in amounts that are at or above those for major sources in the Title V program (40 CFR § 71.2) and the Prevention of Significant Deterioration program (40 CFR § 52.21). Specifically, without restrictions (enforceable as a practical matter) the source would otherwise have the potential to emit the NO<sub>x</sub> and CO pollutants at major source levels, as defined by both the Title V and PSD programs.

#### **b. PTE Limitations**

For each of the listed pollutants, the synthetic minor permit will contain an enforceable operational limitation that would result in an annual allowable emissions limit lower than the major source levels (and lower than the unrestricted potential to emit of the emission units). PTE may be limited through any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed if the limitation is enforceable as a practical matter. The permit provisions in the draft permit meet requirements for practical enforceability by specifying 1) the emission units and activities subject to the limitation, 2) the time period for the limitation, and 3) the methods to determine compliance, including appropriate monitoring, recordkeeping and reporting requirements.

Pursuant to EPA's "Guidance on Limiting Potential to Emit in New Source Permitting"<sup>2</sup> (PTE Guidance), we require that the emissions limitations have a reasonably short averaging period, taking into consideration the operation of the source and the methods to be used for demonstrating compliance. The emission limitations for the three existing RICE units are based on the operating restrictions or emergency stationary RICE units, as specified in 40 CFR § 63.6640(f). For the two new emergency stationary ICE units subject to the provisions of 40 CFR § 60.4211(f), the permit specifies that the readiness (reliability) testing for the two new 4000kW engines/generators have limited durations of less than one-hour, not be conducted simultaneously and only be conducted after ensuring the NO<sub>2</sub> air monitoring data from the City of Albuquerque website is 53 ppb or below, and that readiness testing only occur during the early afternoon hours. These restrictions will help to ensure that the emissions impacts from these sources do not cause or contribute to ambient concentrations in excess of the 1-hour NO<sub>2</sub> NAAQS. It is not feasible to limit the use of RICE and ICE units for emergencies since the inherent use for these units are for vital operations during an unpredictable power supply interruption to the

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<sup>2</sup> Guidance on Limiting Potential to Emit in New Source Permitting," June 13, 1989, to EPA Regional Offices, from Terrell F. Hunt, Associate Enforcement Counsel, Air Enforcement Division, Office of Enforcement and Compliance Monitoring (OECA), and John Seitz, Director, Stationary Source Compliance Division, Office of Air Quality Planning & Standards (OAQPS). Document available at: [http://www.epa.gov/ttn/atw/pte/june13\\_89.pdf](http://www.epa.gov/ttn/atw/pte/june13_89.pdf)

facility. Therefore, this permit establishes emission limits for the units for non-emergency use. However, recordkeeping and reporting requirements for periods that the units are operated in emergencies are included in the permit to ensure that the source remains a synthetic minor source.

While we have the discretion to require additional requirements, including control technology requirements, based on the specific circumstances of an existing synthetic minor source, the emission sources for this permit are limited by other Federal regulations [40 CFR § 49.154(c)], and will include existing operating sources at the facility.

The three existing RICE units (Emission Numbers E1 – E3) are subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 63, Subpart ZZZZ<sup>3</sup>, and the applicant will operate those units as emergency stationary RICE, consistent with the requirements of 40 CFR § 63.6640(f). The two new engines (Emission Numbers E4 – E5) are subject to the New Source Performance Standards (NSPS), 40 CFR Part 60, Subpart IIII, and will be operated as emergency stationary ICE units, consistent with the requirements of 40 CFR § 60.4211(f). Requirements associated with the operation of all the engines are established as enforceable applicable requirements in the permit.

In addition, reductions in non-targeted pollutants such as VOC, resulting from compliance with an independently enforceable applicable requirement such as the NSPS or NESHAP regulations may be counted as restrictions on PTE, provided the emission reduction of the non-targeted pollutant is enforceable as a practical matter. These reductions are reflected in the emission limitations contained in the draft permit.

40 CFR § 49.155(a)(1) through (7) specifies the required contents for a synthetic minor permit, all of which are addressed in the provisions of the draft permit. The draft permit includes emissions limitations and appropriate provisions for monitoring, recordkeeping and reporting.

### **c. Other EPA regulations**

The HAP emissions from the facility are less than 10 tpy and therefore the Sandia facility is considered an area source HAP for which the applicable 40 CFR Part 63, Subpart ZZZZ regulations apply.

The three existing RICE emergency generators as indicated above will meet the 40 CFR Part 63, Subpart ZZZZ regulations. The two new ICE generators are subject to 40 CFR Part 60, Subpart IIII.

The existing boilers and heaters only combust pipeline natural gas and therefore are exempted from the boiler MACT rule, 40 CFR Part 63, Subpart JJJJ.

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<sup>3</sup> Two of the existing RICE units were manufactured in 2000, and the third RICE unit was manufactured in 2005. All three were installed prior to June 12, 2006.

The standard of performance (NSPS Kb) for tank storage of VOC only apply to storage tanks having a capacity of 75 cubic meters, equivalent to 19,813 gallons. The largest diesel tank at the facility will be installed is 12,000 gallons and therefore exempt from the regulation.

The total GHG emissions from the source is less than 100,000 tons per year and therefore no monitoring or emission limits on GHG emissions are required, and the GHG emissions are under 25,000 tons per year and therefore exempt from the annual reporting and monitoring requirements of 40 CFR Part 98.

#### **d. Attainment Designation**

The Sandia Resort and Casino is located on sovereign land in Bernalillo County, New Mexico, which is currently designated as an unclassified/attainment area. The major source threshold for unnamed sources (found at 40 CFR § 52.21(b)(1)(i)(a)) for all criteria pollutants is 250 tons per year (tpy). Additionally, there are no designated non-attainment areas in the regional vicinity of the Sandia facilities. This location in Indian Country has no air monitoring stations, but nearby, approved monitoring stations are maintained by the City of Albuquerque-Bernalillo County as an air pollution control authority.

#### **e. Location**

The facility is located in Bernalillo County in New Mexico. Please see Figure 1. (Latitude/Longitude: 35°12'23.32"N; 106°33'59.04"W )

Figure 1



### III. SOURCE DESCRIPTION

Sandia operates a resort and casino on its sovereign land in Bernalillo County, New Mexico. Sandia can operate five diesel engines and generators for an emergency event. The engines utilize ultra-low sulfur diesel with a sulfur content that does not exceed 0.0015% sulfur. The three existing RICE units (E1 – E3) will operate only as emergency stationary RICE, according to 40 CFR Part 63, Subpart ZZZZ. The two new engines (E4 – E5) will operate as emergency stationary ICE, and certified to meet the requirements of 40 CFR Part 60, Subpart IIII.

Sandia also has three existing diesel storage tanks and three new diesel storage tanks which provide fuel to the engines (E1 – E5). All these tanks are below the regulatory requirements of any federal regulation, including 40 CFR Part 60, Subparts K, Ka, and Kb. Sandia also operates 13 boilers rated at 2.07 MMBtu/hr and 4 boilers rated at 0.99 MMBtu/hr. These emission units are existing units and only use natural gas as fuel.

Records have been maintained for the existing RICE units, boilers, and diesel storage tanks to indicate that past actual emissions are below the 50% threshold for hazardous air pollutants and other regulatory permitting requirements including major NSR and the Part 71 operating permit program. Therefore, the facility meets the requirements to operate as a synthetic minor source.

### IV. EQUIPMENT COVERED BY PERMIT

Two existing Detroit Diesel Model DDC 16V - 4000 rated diesel RICE emergency generators, 2935 hp each.

One existing Detroit Diesel Model MTV 1000 rated diesel RICE emergency generator, 1,676 hp.

Two new Caterpillar Model C-1750 4000 kW rated diesel ICE emergency generators, 5646 hp each.

Thirteen existing 2.07 MMBtu/hr natural gas fired boilers.

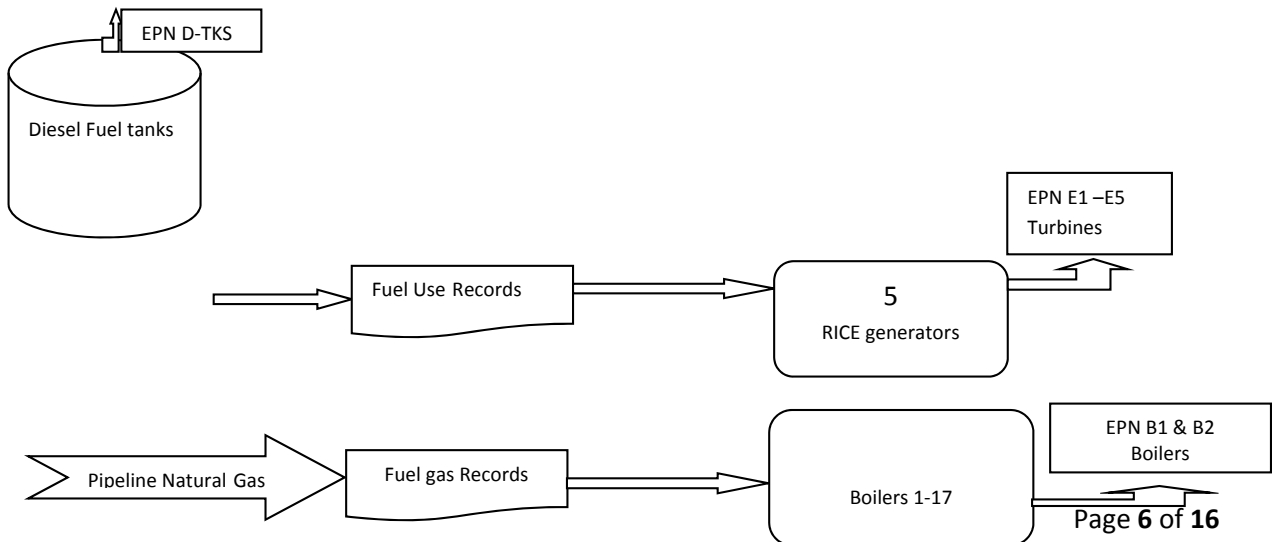
Four existing 0.99 MMBtu/hr natural gas fired boilers.

Three existing 1000-gallon diesel storage tanks.

Two new 410-gallon diesel storage tanks.

One new 12,000-gallon diesel storage tank.

The configuration of the facility's equipment with the fuel monitoring is indicated below:



## V. CONTROL TECHNOLOGY EVALUATION

Since this permit is for the operation of existing units, two new emergency stationary ICE, and three new diesel storage tanks, the control technology evaluation is limited to ensure the emissions from the equipment are reasonable with respect to the type of equipment, and meet all the applicable NSPS and NESHAP rules.

The three existing RICE units (Emission Numbers E1 – E3) were installed prior to June 12, 2006, and a search of the technology used for these units as emergency stationary RICE indicates that the emission limits are within the range for diesel fired engines (see Table 1). Emissions of sulfur and particulates could be reduced by the use of a cleaner fuel such as natural gas. However, this control option is not practical because it would change the basic design and purpose of these units, as emergency stationary RICE and associated generators to be used for emergencies which may include power and natural gas outages.

The two new ICE units were evaluated for the limited hours of use during readiness testing and in the event of an emergency, as specified in 40 CFR Part 60, subpart IIII. The table below indicates the recently permitted facilities.

Analyses of the various control and emission limits for the emergency engines indicate that the emission limits vary based on the air quality of the particular area. The majority do not require additional controls for NO<sub>x</sub> (such as selective catalytic reduction (SCR)) or CO, unless the source is in a non-attainment area like the Bay Area Air Quality Management District. The two new Caterpillar 5,646 hp engines will have lower NO<sub>x</sub> emissions for similar sized engines in an attainment area. Based on the above search and since this source is situated in an attainment area in New Mexico, we conclude that the limits on hours of operation and good operating and maintenance practices meet the control requirements for this source.

Work practice standards have been included in the draft permit to meet good operation and manufacturer's maintenance recommendations, as well as an operational time restrictions for each emergency generator with the use of ultra-low sulfur diesel. Readiness testing, as described below, will be recorded and will be included in the hours of operation for each generator.

“Readiness testing” means operating an emergency standby generator to:

- (i) Evaluate the ability of the engine to perform during an emergency.
- (ii) Facilitate the training of personnel on emergency activities; or
- (iii) Provide additional hours of operation to perform testing on an engine that has experienced a breakdown or failure during maintenance.

Specific conditions require readiness testing to be performed for the engines and conducted only in the afternoon hours when the NO<sub>2</sub> air quality monitoring data in the City of Albuquerque is less than 53 ppb and each event should last less than one hour. Limiting the duration of the testing operation to less than one hour will help to ensure that the emissions impacts from these sources do not cause or contribute to ambient concentrations in excess of the 1-hour NO<sub>2</sub> NAAQS.



**Table 1**

**Existing Control Technology/Emission Limits for Diesel Fuel Fired Emergency Generators**

| Facility Description                | Permitting Authority                   | Generator Size   | Control Technology/Emission Limits   |
|-------------------------------------|--|--|--|
| Los Angeles Times                   | California (CARB)                      | 2340 bhp Detroit Diesel  | With SCR 1.5g/bhp NOx limited to 200 hrs. in a non-attainment area   |
| Walt Disney Pictures and Television | California (CARB)                      | 1109 bhp Caterpillar   | 6.9g/bhp NOx & 0.39g/bhp CO  |
| Sutter West Bay Hospital            | California (Bay Area Quality District) | 1215 bhp Caterpillar   | 3.89g/bhp NOx- non-attainment  |
| General Permit                      | North Carolina (DNER)                  | Total not to exceed 8400 kW  | Hours of operation and good operation and maintenance  |
| General Permit                      | Pennsylvania (DEP)                     | Size not limited   | 6.9g/bhp NOx and 0.40g/bhp PM  |
| General Permit                      | Indiana (IEPA)                         | Size not limited   | less than 100 hours/year   |
| General Permit                      | New Mexico (NMED)                      | Size not limited   | Up to 500 hours and low sulfur fuel of 0.3 wt%   |
| Sandia                              | EPA Region 6                           | Detroit Diesel 2935 hp (2) & 1695 hp (1) emergency stationary RICE | Limited to 100 hours per generator. NOx 6.0g/bhp. Good operation and maintenance. Meet 40 CFR Part 63, Subpart ZZZZ requirements |
|                                     |  | 2 Caterpillar 5646 hp emergency stationary ICE                     | Tier II certified to meet 40 CFR Part 60, Subpart III. NO <sub>x</sub> = 5.07g/hp-hr and PM = 0.04g/hp-hr                        |

The heating rate of the existing boilers is minimal and is used for the Casino services. Use of natural gas, with good operating and maintenance practices, constitute an applicable control technology to minimize emissions for all the boilers. The boilers are below the requirements for any Federal regulations, such as 40 CFR Part 60, Subpart D. The option of utilizing a larger boiler may be more efficient with emission controls for NOx and CO but this would increase the costs for long piping runs to the Sandia Casino as well as additional heat loss from the pipes and most importantly would change the current design of the existing facility. No specific additional control technology options have been required for the existing equipment.

**VI. EMISSIONS**

The emission limits are based on the calculations provided in the original 2012 application and the 2014 amended application.



The emissions in Table 2 below are based on the permitted operational hours of the engines utilizing the ultra-low sulfur diesel fuel as well as 8760 hours/year natural gas firing rates to the boilers.

The facility-wide emissions and operating permit limits are set well below the Part 71/PSD major source threshold of 100/250 TPY for any criteria pollutant to account for a 10+% margin of error in emission estimations/calculations and meter readings. In this permit, the major pollutant is NOx and the facility wide emissions is 27.94 tpy NOx.

**Table 2**  
Emission Limits and Standards

| Equipment Description                                | (EPN)*     | Standard or Emission Limit  | Cumulative Emissions <sup>4</sup> (for all EPN) in tpy   |
|--|------------|---|--|
| 3 RICE Units Diesel Fuel <sup>1</sup>                | E1, E2, E3 | Each RICE unit is limited to 100 hours per year, based on a 12-month rolling average, for the purposes specified in 40 CFR 63.6640(f)(2)(i) through (iii), as further limited by 40 CFR 63.6640(f)(4).<br>Use of ultra-low sulfur diesel not to exceed 0.0015 wt % sulfur.<br>Work practice standards for maintenance and operation of the engines.   | NO <sub>x</sub> = 6.48<br>SO <sub>2</sub> = 0.004<br>PM= 0.33<br>PM <sub>10</sub> =0.33<br>PM <sub>2.5</sub> =0.33<br>CO = 5.96<br>VOC = 0.78  |
| 2 New Caterpillar ICE Units Diesel Fuel <sup>1</sup> | E4, E5     | Each ICE unit is limited to 100 hours per year, based on a 12-month rolling average, for the purposes specified in and limited by 40 CFR 60.4211(f)((1) – (3). Testing of the engines is to be less than one hour per event. See Special Conditions V.3 and V.4 of this permit.<br>Use of ultra-low sulfur diesel not to exceed 0.0015 wt. % sulfur.<br>Work practice standards for maintenance and operation of the engines. | NO <sub>x</sub> = 8.2<br>SO <sub>2</sub> = 0.05<br>CO = 0.75<br>PM=0.07<br>PM <sub>10</sub> =0.07<br>PM <sub>2.5</sub> =0.07<br>VOC=0.08       |
| Boilers 1-17 <sup>2,3</sup>                          | B1, B2     | Use of pipeline natural gas.<br>Monthly rate of 22.1MMSCF based on a 12-month rolling average.<br>No visible emissions.<br>Work practice standard for maintenance of the boilers.   | NO <sub>x</sub> = 13.26<br>SO <sub>2</sub> = 0.08<br>PM= 1.01<br>PM <sub>10</sub> =1.01<br>PM <sub>2.5</sub> =1.01<br>VOC = 0.73<br>CO = 11.14 |
| Diesel Storage Tanks <sup>3</sup>                    | D-TK       | Low sulfur diesel < 0.0015 wt. % sulfur<br>Filling rates not to exceed an annual 12-month rolling average of 457,812 gallons.   | VOC ≤ 0.82   |

Notes:

\* Emission Point Number

1. Emission rates are based on a maximum diesel input of 457,812 gallons for all engines and are for non-emergency use.
2. Cumulative emissions based on the natural gas used for the boilers. These are insignificant emission units that do not require monitoring for individual boiler operations.
3. Insignificant emissions and units will not require monitoring for emissions. Emissions will be calculated based on diesel filling rates not to exceed 457,812 gals/year for all tanks.
4. Cumulative emissions for the specific category of units and EPN.

## VII. EMISSIONS CALCULATIONS

The potential to emit (PTE) emissions are based on operating the three existing RICE (E1 – E3) and the two new ICE (E4 – E5) for 100 hours per year per engine, and operation of all seventeen boilers for 8,760 hours per year. The emission calculations for the submitted reports in Section XI below, should be based on actual emissions for the preceding calendar year and calculated using the actual operating hours for the engines and boilers.

- a. Criteria emissions from the engines shall be calculated with the equations below using the manufacturer's specific factors for stationary diesel turbines. For sulfur emissions use the annual % sulfur in the diesel fuel purchased.

Equation:  $E = \text{bhp} \times \text{EF}/B \times \text{Hr} \times K$  Equation (i)

E = Annual emissions in tons per year (tpy)

Where E = Pollutant emissions (CO, NO<sub>x</sub>, PM/PM<sub>10</sub>/PM<sub>2.5</sub>, VOC) in tpy

bhp = brake horse power

EF = Emission factor from the manufacturer's data in g/hp/hr/- Appendix A

B = 453.59 for conversion of grams to lbs

Hr = No. of hours of operation/year

K = 1 ton/2000 lbs for conversion from pounds per year to tons per year (tpy)

For SO<sub>2</sub> emissions from the engines that use ultra-low sulfur diesel.

Use the equation (ii) below with the EF of sulfur content in lbs sulfur/lbs of fuel

Where w<sub>s</sub> = Weight percent of sulfur in the diesel fuel that is reported annually from the vendor or from samples ≤ 0.0015%

G = Total Gallons of diesel fuel used in the year

D<sub>f</sub> = Density of diesel fuel (from vendor information) in lbs/gallon ≤ 0.86

$\text{EF}_{\text{sulfur}} = w_s / D_f$

- b. For criteria pollutants from the boilers use the natural gas the AP-42 factors in Fifth Edition of Chapter 1, Table 1.4-1(Small boilers) & 1.4-2 "Emission Factors for Criteria Pollutants and GHG".

Equation:  $E = EF \times OP \times Hr \times K$

Equation (ii)

Where:

E = pollutant emissions in tpy

EF = emission factor (see Appendix A and actual emission factor for diesel fuel)

OP = operational rate such as the BHP of the generators, gallons of diesel fuel or MMBTU/hr for natural gas

Hr = No of hours of operation/year

K = 1 ton/2000 lbs for conversion from pounds per year to tons per year

- c. Emissions from the Diesel tanks will be calculated using the equations for a fixed roof tank as in Appendix A in the draft permit.
- d. Emission factors for the criteria pollutants for the generators are in Appendix B of the draft permit, and should be used to determine compliance with the emission limits in Table 2.

## **VIII. PERMIT LIMITS**

The permit limits are based on emission standards, parametric monitoring and work practice standards, including:

1. 100 hours of operation for each engine per year not to exceed the hours as specified in Table 2.
2. Records on maintenance and operations of the engines that meet the manufacturer's recommendations, including the applicable requirements of 40 CFR Part 63, Subpart ZZZZ, for the three existing RICE (E1 – E3), and the applicable requirements of 40 CFR Part 60, Subpart IIII (including the emission standards in 40 CFR § 60.4205) for the two new ICE (E4- E5).
3. Maintenance of the boilers per manufacturer's recommendations.
4. Annual diesel consumption not to exceed 457,812 gallons.
5. Use of ultra-low sulfur diesel not to exceed a weight percent of 0.0015.
6. Total natural gas consumption not to exceed a rolling 12-month average of 22.1 MMSCF.

## **IX. MONITORING REQUIREMENTS**

1. Operate and maintain the equipment per the manufacturer's recommendations for the engines and associated generators.
2. Readiness testing of the engines and associated generators should be performed during time periods as specified in Section IV., Conditions 3 and 4 of the permit.

3. Monitor fuel usage to the boilers (B1 and B2) on a monthly basis.
4. Monitor the diesel fuel filling rates to the tanks as well as the fuel to the diesel engines on an annual basis.
5. Monitor the hourly use of all the engines not to exceed the 100 hours per engine during non-emergency use, including startup and shutdown and readiness tests.
6. Annual tests at the facility or from vendor tests to determine the sulfur content of the diesel.
7. The three existing engines shall comply with the requirements for emergency stationary RICE, as set forth in 40 CFR Part 63, Subpart ZZZZ.
8. The two new engines shall comply with the requirements for emergency stationary ICE, as set forth in 40 CFR Part 60, Subpart IIII.

#### **X. RECORDKEEPING REQUIREMENTS**

1. Keep maintenance records for the above units to demonstrate compliance with the permit limits.
2. Keep records of the sulfur content of diesel fuel via the purchases.
3. Keep records of natural gas used and diesel fuel used on an annual basis.
4. Keep records of the operation of the diesel engines during emergency and non-emergency situations. With respect to maintenance checks and readiness testing, records shall be maintained to show the date, time of day, duration of the checks and testing and the Albuquerque NO<sub>2</sub> monitor reading immediately preceding those checks and tests.
5. Keep records for the two new engines (E4 and E5), as required in 40 CFR § 60.4214.
6. Keep records for the three existing generators E1-E3, as required in 40 CFR § 63.6655.

#### **XI. REPORTING REQUIREMENTS**

Reports should be sent electronically to EPA Compliance and Enforcement Division at [R6TribalNSRCompliance@epa.gov](mailto:R6TribalNSRCompliance@epa.gov) with a copy to [R6AirPermits@epa.gov](mailto:R6AirPermits@epa.gov). The emails must have the subject matter as “Compliance Report for Sandia, Permit No. R6NSR-NM-001.”

1. An annual report documenting the twelve (12) month annual emissions for each previous calendar year no later than April 1<sup>st</sup> is to be submitted to EPA. For the first calendar year the Permittee shall submit the cumulative facility-wide emissions. The report shall also document that no operational restriction has been exceeded.

2. Reports of deviations from the permit limits in Table 2 of the permit shall be provided via a written report indicating the deviations of limits with a description of any corrective actions or preventive measures taken. A “Prompt” report is one that is postmarked via mail:
  - a) Thirty (30) days from the discovery of a deviation that would cause the Permittee to exceed the facility-wide emission limits if left uncorrected for more than five (5) days after discovering the deviation; and
  - b) Twelve (12) months from the discovery of a deviation of recordkeeping or other permit conditions that do not affect the permittee’s ability to meet the facility-wide emission limits.
3. Any other reports as requested by EPA.

## **XII. AIR QUALITY REVIEW**

The reviewing authority may require an applicant to submit an air quality impacts analysis (AQIA) if it has reason to be concerned that construction of a minor source or modification would cause or contribute to a NAAQS or PSD increment violation. See 40 CFR § 49.154(c). With the exception of NO<sub>x</sub>, most of the pollutants from this facility have had de minimis increases as a result of the addition of two emergency engines and diesel storage tanks. The NO<sub>x</sub> emission increases have been estimated to be 8.2 tpy from the two new emergency generators that are certified Tier II under 40 CFR Part 60, Subpart IIII and can only be used as emergency stationary ICE, as specified in 40 CFR Part 60, Subpart IIII. In addition, the existing RICE (E1 – E3) will only be operated as emergency stationary RICE, as specified in 40 CFR Part 63, Subpart ZZZZ. This is not a PSD permit and the major source threshold for this facility is 250 TPY for any criteria pollutant. However, since there could be some concern regarding the increase in NO<sub>x</sub> emissions from the current operation, we evaluated whether an AQIA or dispersion modeling should be required. According to EPA’s NO<sub>x</sub> guidance<sup>4</sup>, emergency engines that are used intermittently for testing and reliability purposes are not required to be modeled since the testing can be scheduled when meteorological conditions are favorable. Therefore, in lieu of dispersion modeling for NO<sub>2</sub> against the one-hour NO<sub>2</sub> NAAQS level, several restrictions on the hours of operation for conducting maintenance checks and readiness tests on the engines and associated generators have been prescribed in the permit. We also believe that these permit restrictions which specifically limit the annual hours of operation will result in impact on annual ambient NO<sub>2</sub> concentrations to be minimal and not result in violation of the annual NO<sub>2</sub> NAAQS.

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<sup>4</sup> March 1, 2011 memorandum from Tyler Fox to the Regional Air Division Directors available at: [http://www.epa.gov/region7/air/nsr/nsrmemos/appwno2\\_2.pdf](http://www.epa.gov/region7/air/nsr/nsrmemos/appwno2_2.pdf)

### XIII. TRIBAL AND STATE NOTIFICATIONS

In compliance with 40 CFR § 49.157(b), a copy of the public notice was sent to the Pueblo of Sandia Governor, New Mexico Environmental Department, Albuquerque Department of Environmental Quality, the Mayor of Albuquerque as well as other agencies such as Fish and Wild life services in New Mexico and the State Historical Preservation Office in Santa Fe, New Mexico.

### XIV. ENDANGERED SPECIES ACT

Pursuant to Section 7(a)(2) of the Endangered Species Act (ESA) (16 U.S.C. 1536) and its implementing regulations at 50 CFR Part 402, EPA is required to insure that any action authorized, funded, or carried out by EPA is not likely to jeopardize the continued existence of any federally-listed endangered or threatened species or result in the destruction or adverse modification of such species' designated critical habitat.

EPA has identified six (6) species listed as federally endangered or threatened in Bernalillo County, New Mexico:

| <b>Federally Listed Species for Sandoval County</b> by the U.S. Fish and Wildlife Service (USFWS) and New Mexico Department of Game and Fish (NMDGF) | <b>Scientific Name</b>            |
|--|-----------------------------------|
| <b>Birds</b>   |                                   |
| Mexican Spotted Owl  | <i>Strix occidentalis lucida</i>  |
| Southwestern Willow Flycatcher   | <i>Empidonax traillii extimus</i> |
| Yellow-billed Cuckoo   | <i>Coccyzus americanus</i>        |
| <b>Amphibians</b>  |                                   |
| Jemez Mountains Salamander   | <i>Plethodon neomexicanus</i>     |
| <b>Fishes</b>  |                                   |
| Rio Grande Silvery Minnow  | <i>Hybognathus amarus</i>         |
| <b>Mammals</b>   |                                   |
| New Mexico Meadow Jumping Mouse  | <i>Zapus hudsonius luteus</i>     |

The designated action area for this project roughly covers 600 acres and includes an existing hotel facility, casino, parking area and golf course that was constructed in 1994. Issuance of this permit would authorize the installation and operation of two new emergency diesel-fired electrical generators and three aboveground fuel storage tanks adjacent to already existing emergency generators and fuel tanks located within the existing facility grounds. EPA conducted a desktop review for ESA species using US Fish and Wildlife's online Information for Planning and Conservation (IPaC) website, which did not indicate the presence of critical habitat for any of these species within the action area. In addition, because the entire action area is developed, EPA is not aware of any habitat that would support any of the listed species. Therefore, EPA has determined that issuance of the proposed permit will have no effect on any of the six listed species, as there is no designated critical habitat nor potential suitable habitat for any of these species within the action area.

Because the EPA has made a “*No effect*” determination, no further consultation with the USFWS is needed, and its obligations under Section 7 are complete.

Any interested party is welcome to bring particular concerns or information to our attention regarding this project’s potential effect on listed species. The final draft of the synthetic minor NSR permit and a copy of the IPaC report can be found at EPA’s Region 6 Air Permits website at <http://yosemite.epa.gov/r6/Apermit.nsf/AirP>

## **XV. NATIONAL HISTORIC PRESERVATION ACT (NHPA)**

Section 106 of the NHPA requires EPA to consider the effects of this permit action on properties eligible for inclusion in the National Register of Historic Places. To make this determination, EPA is relying on a cultural resources survey prepared by Dr. Henry Walt on behalf of Sandia dated October 19, 1995. For purposes of the NHPA review, the Area of Potential Effect (APE) was determined to be approximately 600 acres of land within and adjacent to Sandia’s existing resort facility that includes a parking area, golf course, casino and hotel.

Based on the field survey, no archaeological sites were encountered as a result of the 1995 report; however, eighteen (18) isolated occurrences, thirteen (13) of which were cairns or cairn complexes, were identified around the property but none were recommended to be eligible for listing on the National Register. Construction activities include installation and construction of two new internal combustion engines to be used as emergency generators and three aboveground storage tanks; however, there will be no new ground disturbances as a result of the issuance of this synthetic minor NSR permit. Further, the site has been subject to various ground disturbances associated with construction of the casino, resort, parking lot and golf course and continued operational activities related to the hotel industry.

Therefore, EPA Region 6 determines that the potential of archaeological resources within the APE is low and issuance of the permit to Sandia will not affect properties potentially eligible for listing on the National Register.

In accordance with 36 CFR § 800.3(a)(1), EPA has determined that the proposed action has no effects on historic properties, assuming that such properties were present.

EPA will provide a copy of the report to the New Mexico State Historic Preservation Officer for consultation and concurrence with its determination. Any interested party is welcome to bring particular concerns or information to our attention regarding this project’s potential effect on historic properties. A copy of the report may be found at <http://yosemite.epa.gov/r6/Apermit.nsf/AirP>.

## **XVI. PERMIT PROCESSING PROCEDURES**

- a.** EPA provided the draft permit and technical support document to the Permittee for review on October 8, 2015.



- b.** Public Notice will be posted in the Pueblo of Sandia main office, electronically on the Region 6 website at:  
<http://www2.epa.gov/caa-permitting/tribal-nsr-permits-epas-south-central-region>  
and in the Albuquerque Journal.
- c.** As indicated in Section XIII, letters were sent on November 12, 2015.
- d.** An electronic version of the permit and all public documents associated with the permitting action is made available at:  
<http://www2.epa.gov/caa-permitting/tribal-nsr-permits-epas-south-central-region>