**DRAFT Statement of Basis - Narrative**

NSR Permit

**Type of Permit Action:** Regular-Significant Revision

**Facility: Los Alamos National Security, LLC**

**Company:** U.S. Department of Energy National Nuclear Security Administration

**Permit No(s).**: 2195B-M3 and P100M2

**Tempo/IDEA ID No.**: 856 - PRN20180001

**Permit Writer:** Kirby Olson

**Fee Tracking (not required for Title V)**

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| **Tracking** | **NSR tracking entries completed:** [] Yes [X] No |
| **NSR tracking page attached to front cover of permit folder:** [] Yes [X] No |
| **Paid Invoice Attached:** [X] Yes [] No |
| **Balance Due Invoice Attached:** [] Yes [X] No |
| **Invoice Comments:** $16,228 paid 5/10/18. |

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| **Permit Review** | **Date to Enforcement:** TBD | **Date of Enforcement Reply:** TBD |
| **Date to Applicant:** TBD | **Date of Applicant Reply:** TBD |
| **Date to EPA:** TBD or N/A | **Date of EPA Reply:** TBD or N/A |
| **Date to Supervisor:** TBD | |

1. **Plant Process Description:**  The Facility is a standby power plant located at Technical Area 3 (TA-3), at Los Alamos National Laboratory (LANL), Los Alamos County, New Mexico. Currently, the TA-3 Power Plant provides steam and electricity using boilers that are capable of being fired with fuel oil or natural gas. The facility also provides electricity using a natural gas turbine.

Currently, the facility consists of the following regulated emissions sources: three (3) 178.5 MMBtu/hr Power Boilers (Units B-1, B-2, and B-3, site-derated capacity); three (3) flue gas recirculation fan systems to be used in conjunction with the boilers (Unit F-1, F-2, and F-3); and one (1) Rolls-Royce 27.0 MW simple cycle combustion turbine (Unit CT-1, capacity listed at site-maximum).

After this permit is issued, the TA-3 Power Plant will consist of two 72.3 MMBtu/hr boilers that produce only steam for heating buildings. The existing turbine will be combined with a Heat Recovery Steam Generator (HRSG) that includes a duct burner. The HRSG will produce steam that can generate additional electricity through a new Steam Turbine Generator (STG). The existing turbine plus HRSG is referred to as combined heat and power (CHP). None of the electricity produced is sold or used offsite. The CHP will have a Selective Catalyst Reduction (SCR) unit to control NOx emissions; the SCR uses ammonia generated on-site from urea. Upstream of the SCR will be a CO fixed bed catalyst to control CO and VOC emissions. The ammonia for the SCR will be generated using a hydrolyzer skid powered by electricity and is therefore not a combustion source. The new TA-3 Power Plant will also include several pieces of equipment exempt from the construction (NSR) permit: a fuel gas heater, two makeup air heaters, and three comfort heaters. Emissions from those units will be included in the Title V permit for LANL. The facility also includes an existing NSR exempt emergency generator.

1. **Description of this Modification:**  The modification will occur in three phases because the time frame for the entire project is 5 years. In Phase 1 the two new auxiliary boilers will be constructed; two of the existing boilers (TA-3-22-1 and TA-3-22-2) will be permanently shut down when the new boilers become operational. Phase 1 also includes the exempt comfort heaters and makeup air heaters. Phase 2 (piping upgrade) has no air emission sources. In Phase 3, the HRSG, STG, SCR and CO catalyst will be installed on the gas turbine. Phase 3 also includes shutdown of the third existing boiler (TA-3-22-3).
2. **Source Determination:**

Title V, PSD, NNSR Sources:

The individual stationary air emission sources that are grouped to determine the Laboratory’s air emissions for the Title V (20.2.70 NMAC), Prevention of Significant Deterioration (PSD) (20.2.74 NMAC), or Nonattainment (NNSR) 20.2.79 NMAC permit regulations includes all individual stationary sources of regulated air pollutants within the entire set of complexes and Technical Areas that, in total, comprise the Los Alamos National Laboratory (LANL).

Minor Construction Sources:

The minor source construction permit regulation at 20.2.72.7.EE NMAC defines the entire stationary source differently than the Title V, PSD, and NNSR permit regulations. The minor source regulation requires approval from the Secretary to consider the entire laboratory as one single stationary source. Therefore, for the minor source regulation, sources are grouped by each functional area (e.g. power plant), responsible LANL operating group (Utilities and Institutional Facilities Operations), and/or source type (asphalt plant), and not by the entire laboratory. Here is the source definition from the minor source construction permit regulation: 20.2.72.7.EE "Stationary source" or "source" means any building, structure, equipment, facility, installation (including temporary installations), operation or portable stationary source which emits or may emit any air contaminant. Any research facility may group its sources for the purpose of this part at the discretion of the secretary.

1. Single Source Analysis:

A. SIC Code: Do the facilities belong to the same industrial grouping (i.e., same two-digit SIC code grouping, or support activity)? Yes, the entire laboratory falls under one SIC code which is 8733 Noncommercial Research Organizations.

B. Common Ownership or Control: Are the facilities under common ownership or control? Yes, the LANL operator is Los Alamos National Security, LLC and LANL’s owner is US DOE NNSA and therefore it is under common ownership and control.

C. Contiguous or Adjacent: Are the facilities located on one or more contiguous or adjacent properties? All laboratory operations subject to air quality permitting are located on contiguous and/or adjacent properties.

2. Is the source, as described in the application, the entire source for 20.2.70, 20.2.72, 20.2.73, or 20.2.74 NMAC applicability purposes? The entire Los Alamos National Laboratory (LANL) is considered the entire, single source for purposes of Title V 20.2.70, PSD 20.2.74, and Nonattainment 20.2.79 NMAC air permit regulations.

However, pursuant to 20.2.72.7.EE NMAC, the source is defined as all stationary sources of regulated air emissions at the TA-3 Power Plant.

1. **PSD Applicability:**
2. The source, as determined in 3.0 above, is a PSD minor source before and after this modification.
3. **History (In descending chronological order, showing NSR 2195B and TV):** \*The asterisk denotes the current active NSR and Title V permits that have not been superseded. Note that LANL has multiple NSR permits but a single Title V permit. The history for NSR 2195B and the Title V permit are listed in this Statement of Basis.

| **Permit Number** | **Issue Date** | **Action Type** | **Description of Action (Changes)** |
| --- | --- | --- | --- |
| \*2195BM3 | Current Action | Pre-Construction (NSR) Sig Rev | The permit revision replaces the existing TA-3 Power Plant in three phases. In Phase 1 the two new auxiliary boilers will be constructed; two of the existing boilers (TA-3-22-1 and TA-3-22-2) will be permanently shut down when the new boilers become operational. Phase 1 also includes the exempt comfort heaters and makeup air heaters. Phase 2 (piping upgrade) has no air emission sources. In Phase 3, the HRSG, STG, SCR and CO catalyst will be installed on the gas turbine. Phase 3 also includes shutdown of the third existing boiler (TA-3-22-3). |
| P100M2\* | 5/7/2018 | Title V administrative amendment | Add a second operator (Newport News Nuclear BWXT-Los Alamos, LLC) to the Title V permit and designate the current facility owner (DOE-NNSA) as the permittee |
| 2195R72 | 4/10/18 | Notice of Exemption | This revision consists of two changes: 1) the addition of sixteen (16) exempt pieces of fuel burning equipment with a design rate less than or equal to 5 million BTU/hr, and 2) the revision of a currently permitted solvent degreaser (unit TA-55-DG-1) to exempt status. |
| \*P100-R2M1 | 2/3/2017 | Title V Minor Permit Modification | **TA 54 SVE:**  This permit revision removed the conditions in Section A113 of the Title V Operating permit for the TA 54 MDL Soil Vapor Extraction (SVE) unit. This is because the requirement was completed to verify that the SVE air emissions are Title V Insignificant, activity number 1.a and 1.b. The condition required that the permittee, using data from the SVE stack, calculate and report the emission rates of HAPs and New Mexico TAPs. The SVE system is a Title V Insignificant Activity emissions of which must be included in the facility-wide HAPs emissions cap. The requirements of this condition were satisfied and no longer applied as of March 9, 2016.  **Water Evaporator Sprayers TA-60:**  Add 5 floating evaporative sprayers to the Title V permit (units TA-60-EVAP-1 to -EVAP-5) for the LANL Sanitary Effluent Treatment Facility (SERF).  Existing sprayer unit TA-60-EVAP, model number 420, is not authorized to operate and was shut down as of June 28, 2016 and then decommissioned as per Voluntary Disclosure and Corrective Action received on 7-18-16.  The TSP NMAAQS is not an applicable requirement in title V, however, TSP is a regulated air pollutant subject to Title V permitting (see 20.2.70.7.AC(a)). Also per 20.2.70.302.A(8) NMAC fugitive emissions, as well as stack emissions, from a source are also subject to regulation in the operating permit.  Hazardous Air Pollutants (HAPs) from the evaporative sprayers are verified in Condition A1507.A by calculating the tons per year emission rates using hours of operation and the most recent water analysis. Although New Mexico TAP (NM TAP) emission rates are too low to regulate for this source, the permit still requires verification of these emission rates and reporting to the Air Quality Bureau.  Numerical air emission limits from the evaporative sprayers are not appropriate because the emission rates are minimal; they are fugitive and cannot be directly measured; TSP and PM10 pollutants from this source do not require air dispersion modeling; and hazardous air pollutants (HAPs), including those from the evaporative sprayers, must be inventoried and reported from the entire Laboratory every 6 months.  **Air emission rates estimated from ground water samples and reported in the application from the evaporative sprayers are:**  1.40 pph/6.12 tpy TSP; 0.07 pph/0.29 tpy PM10; ton per year (tpy) emissions of the following HAPs are: 0.0000000138 PCBs, 0.00000633 chloroform, 0.0000434 chloromethane, 0.000056 bromoform, 0.000129 cyanide, 0.000465 manganese, 0.00022 antimony, and 0.001 total HAPs. NM Toxic Air Pollutants (NMTAPs) are not subject to permit requirements since each TAP is below the regulatory threshold that requires a permit. |
| P100-R2 | 2/27/15 | Title V renewal | Renewal of Title V permit. Incorporates changes since P100R1M3 issued 4/26/13.  Petitioners petitioned title V Permit No. P100-R2 to the Environmental Improvement Board and a hearing was completed. See hearing record under EIB 15-02(A). A copy of the final decision is in the permit file.  **See statement of for P100R2 for information regarding fire fighter training and asbestos as it applies to the open burning regulation at 20.2.60 NMAC.** |
| P100R1M3 | 4/26/13 | Admin Rev | Removal of four retired boilers (TA-48-1-BS-2 & 6 and TA-59-1-BHW-1 &2) from list of regulated sources |
| P100R1M2 | 12/26/12 | Admin Rev | Retirement of four boilers (TA-48-1-BS-2 & 6 and TA-59-1-BHW-1 &2) from list of regulated sources |
| P100R1M1 | 6/15/12 | Title V Significant Modification | Incorporates NSR 2195BM2 |
| 2195B-M2 | 11/1/11 | Tech Rev | Increase allowable annual natural gas fuel consumption by the Combustion Turbine and reduce annual allowable fuel oil usage. |
| \*P100R1 | 8/7/09 | Title V Renewal | Incorporates changes since P100R1: 2195NR1, 2195F-R2, P100M2, and 2195P. Also includes 1081-M1-R6, prior to P100M1. For specific changes see 2.0 Description of this Modification above. |
| 2195B-M1-R2 | 3/5/09 | Technical Rev | Changed the method for monitoring emissions from the CT, from a calculation based on fuel usage to direct measurement of stack emissions using a portable analyzer. This permit supersedes all portions of Permit No. 2195B-M1-R1, except the portion requiring compliance tests. |
| 2195B-M1-R1 | 10/14/08 | Admin Rev | This revision consists of establishing use and exempt status of the following two emergency generators:  1) 1100 kW Cummins Generator, Model KTA50-G2  Location: TA-16 Weapons Engineering Tritium Facility (WETF), Bldg. 980  2) 1250 kW Cummins Generator, Model DFLC-5554001  Location: TA-3 Power Plant, Bldg. 1404 |
| P100M2 | 7/16/07 | Admin Amendment | Retired Beryllium operations at the Chemistry and Metallurgy Research Facility at TA-3-29. |
| P100M1 | 6/15/06 | Title V Modification | Removed the Paper Shredder located at TA-52-11 and replaced it with the Data Disintegrator; removed Boilers TA-16-1485-BS-1 and BS-2, and the portable rock crusher; and installed a new 25 MW simple cycle natural gas turbine at the Power Plant at TA-3.  P100M1 supersedes permit P100. |
| \*Various | 6/14/06 | Admin Rev | Changed the name of the facility operator from the University of California to Los Alamos National Security, LLC (LANS).  (632-R1, 634-M2-R1, 1081-M1-R7, NPR 2195A-R1, 2195B-M1R1, 2195F-R1, GCP-3-2195G-R1, 2195H-R1, NPR 2195L-R1, 2195N-R1, 2195R-24, NOI 2597-R1.) |
| 2195B-M1 | 7/30/04 | Regular Sig. Rev | Authorizes the modification and operation of the Technical Area – 3 Power Plant (TA-3). This permit supersedes all portions of Air Quality Permit No. 2195B-R1 |
| P100 | 4/30/04 | New Title V | New operating permit issued for the facility. |
| 2195B-R2 | 5/15/03 | Admin Rev - NOE | This revision consists of a change in the site support services subcontractor and operator of the TA 3-22 Power Plant. KSL Services will be the new subcontractor and operator effective February 2003. Request received on March 5, 2003. |
| 2195B-R1 | 11/21/02 | Technical Rev | Revised/Replaced emission limits table 2.1 in Permit 2195B. |
| 2195B | 9/27/00 | New NSR | Authorized the modification and operation of the Technical Area – 3 Power Plant. |

1. **Public Response/Concerns:**  On June 4, 2018 AQB received email comments on this application from Concerned Citizens for Nuclear Safety (CCNS). These comments were received after the 30-day deadline that would require an additional 30 day review period of the Statement of Basis. Regardless, a draft Statement of Basis is available on the AQB website. The comments related to soil and groundwater contamination. AQB determined that the TA-3 Power Plant site contains a number of sites regulated by the Hazardous Waste Bureau under LANL’s RCRA permit; therefore, CCNS was referred to HWB for these issues. No other comments have been received to date.

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| 1. **Compliance Testing:** | | |
| **Unit No.** | **Compliance Test** | **Test Dates** |
| TA-3-22-1,-2,-3 | FGR system startup compliance test for NOx and CO as required by NSR Permit No. 2195B. | 9/25/2002 –  9/27/2002 |
| TA-3-22-CT-1 | CGTG startup compliance test for NOx and CO as required by NSR Permit No. 2195B – M1. | 10/5/2007 |
| TA-3-22-CT-1 | CGTG annual compliance test for NOx and CO with portable analyzer as required by NSR Permit No. 2195B-M1-R2. | 10/23/2009 |
| TA-3-22-CT-1 | CGTG annual compliance test for NOx and CO with portable analyzer as required by NSR Permit No. 2195B-M1-R2 and additional testing at 80% load. | 6/17/2010 |
| TA-3-22-CT-1 | CGTG annual compliance test for NOx and CO with portable analyzer as required by NSR Permit No. 2195B-M1-R2 and additional testing at 80% load. | 1/19/2011 |
| TA-3-22-CT-1 | CGTG annual compliance test for NOx and CO with portable analyzer as required by NSR Permit No. 2195B-M1-R2 and additional testing at 100% load. | 1/17/2012 |
| TA-3-22-CT-1 | CGTG annual compliance test for NOx and CO with portable analyzer as required by NSR Permit No. 2195B-M1-R2 and additional testing at 92% load. | 12/11/2012 |
| TA-3-22-CT-1 | CGTG annual compliance test for NOx and CO with portable analyzer as required by NSR Permit No. 2195B-M1-R2 and additional testing at 92% load. | 1/10/2014 |
| TA-3-22-CT-1 | CGTG annual compliance test for NOx and CO with portable analyzer as required by NSR Permit No. 2195B-M1-R2 and additional testing at 90% load. | 12/16/2014 |

1. **Startup and Shutdown:** 
   1. If applicable, did the applicant indicate that a startup, shutdown, and emergency operational plan was developed in accordance with 20.2.70.300.D(5)(g) NMAC? Yes
   2. If applicable, did the applicant indicate that a malfunction, startup, or shutdown operational plan was developed in accordance with 20.2.72.203.A.5 NMAC? Yes
   3. Did the applicant indicate that a startup, shutdown, and scheduled maintenance plan was developed and implemented in accordance with 20.2.7.14.A and B NMAC? Yes
   4. Does the facility have emissions due to routine or predictable startup, shutdown, and maintenance? If so, have all emissions from startup, shutdown, and scheduled maintenance operations been permitted? Yes. SSM emissions for the turbine/HRSG are included in the application. SSM emissions from the auxiliary boilers are minimal and included in the routine allowable emissions.
2. **Compliance and Enforcement Status:** Email from Jon Lutz (4/4/2018) states that there are no open enforcement cases or other issue with LANL.
3. **Modeling:** Modeling was submitted for this application for TSP, PM10, PM2.5, NO2, SO2, and CO. The modeling review (David Heath, 5/30/18) demonstrated that the facility neither causes nor contributes to any exceedances of applicable air quality standards.
4. **State Regulatory Analysis(NMAC/AQCR**)**: TA-3 Power Plant**

| [**STATE REGU- LATIONS**](http://www.nmenv.state.nm.us/aqb/regs/index.html)  **CITATION**  **20**  **NMAC** | **Title** | **Applies**  **(Y/N)** | **Unit(s) or Facility** | **JUSTIFICATION:** |
| --- | --- | --- | --- | --- |
| **2.1** | GENERAL PROVISIONS | Yes | Entire Facility | The facility is subject to Title 20 Environmental Protection Chapter 2 Air Quality of the New Mexico Administrative Code so is subject to Part 1 General Provisions, Update to Section 116 of regulation for Significant figures & rounding. Applicable with no permitting requirements. |
| **2.3** | Ambient Air Quality Standards | Yes for NSR | Entire Facility | **NSR:** 20.2.3 NMAC is a SIP approved regulation that limits the maximum allowable concentration of Total Suspended Particulates, Sulfur Compounds, Carbon Monoxide and Nitrogen Dioxide. |
| **2.7** | Excess Emissions | Yes | Entire Facility | Applies to all facilities' sources |
| **2.33** | Gas Burning Equipment ‑ Nitrogen Dioxide | No |  | **This regulation does not apply to internal combustion equipment such as engines. It only applies to external combustion equipment such as heaters or boilers.**  This facility does not have gas burning equipment having a heat input of greater than 1,000,000 million British Thermal Units per year per unit. |
| **2.34** | Oil Burning Equipment ‑ Nitrogen Dioxide | No |  | **This regulation does not apply to internal combustion equipment such as engines. It only applies to external combustion equipment such as heaters or boilers.**  This facility does not have oil burning equipment having a heat input of greater than 1,000,000 million British Thermal Units per year per unit. |
| **2.61** | Smoke and Visible Emissions | Yes | TA-3-22-1 TA-3-22-2 TA-3-22-3 TA-3-22-4 TA-3-22-5  TA-3-22-CT-1  TA-3-22-CHP-1 | This regulation that limits opacity to 20% applies to Stationary Combustion Equipment, such as engines, boilers, heaters, and flares unless your equipment is subject to another state regulation that limits particulate matter such as 20.2.19 NMAC (see 20.2.61.109 NMAC). After Phase 3, only units TA-3-22-4, TA-3-22-5, and TA-3-22-CHP-1 will be active. |
| **2.70** | Operating Permits | Yes | Entire Facility | The source under this NSR is not a Title V Major Source as defined at 20.2.70.7 NMAC. However, this source is grouped with other LANL NSRs under one Title V operating permit. |
| **2.71** | Operating Permit Fees | Yes | Entire Facility | Source is subject to 20.2.70 NMAC as cited at 20.2.71.109 NMAC. |
| **2.72** | Construction Permits | Yes | Entire Facility | Section 200.A.1 - 200 A.6,  PER **>** 10 pph or 25 tpy for a criteria pollutant, |
| **2.73** | NOI & Emissions Inventory Requirements | Yes | Entire Facility | Applicable to all facilities that require a permit.  PER **>** 10 tpy for a regulated air contaminant. |
| **2.74** | Permits-Prevention of Significant Deterioration | No | Entire Facility | Neither the TA-3 Power plant under this NSR nor the entire portion of LANL under Title V permit P100M2R1 are PSD facilities |
| **2.75** | Construction Permit Fees | Yes | Entire Facility | This facility is subject to 20.2.72 NMAC |
| **2.77** | New Source Performance | Yes | See Sources subject to 40 CFR 60 | Applies to any stationary source constructing or modifying and which is subject to the requirements of 40 CFR Part 60. |
| **2.78** | Emissions Standards for HAPs | No | See Sources subject to 40 CFR 61 | This regulation applies to all sources emitting hazardous air pollutants, which are subject to the requirements of 40 CFR Part 61. |
| **2.79** | Permits Nonattainment Areas | No |  | This facility is not located in, not does it affect, a nonattainment area. |
| **2.82** | MACT Standards for Source Categories of HAPs | No | See sources subject to 40 CFR 63 | This regulation applies to all sources emitting hazardous air pollutants, which are subject to the requirements of 40 CFR Part 63. |

1. **Federal Regulatory Analysis: TA-3 Power Plant**

| **Federal Regulation** | **Title** | **Applies**  **(Y/N)** | **Unit(s) or Facility** | **Comments** |
| --- | --- | --- | --- | --- |
| Air Programs Subchapter C  (40 CFR 50) | National Primary and Secondary Ambient Air Quality Standards | Yes | Entire Facility | Independent of permit applicability; applies to all sources of emissions for which there is a Federal Ambient Air Quality Standard. |
| NSPS Subpart A  (40 CFR 60) | General Provisions | Yes | See sources subject to a Subpart in 40 CFR 60 | Applies if any other subpart applies. |
| 40 CFR60.40a, Subpart Da | Standards of Performance for Electric Utility Steam Generating Units, | No |  | Unit CHP has a capacity of 47 MW, which is 160.4 MMBtu/hr, below the  250 MMBtu/hr threshold. |
| 40 CFR 60.40b, Subpart Db, | Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units | No |  | (a) The affected facility to which this subpart applies is each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 29 MW (100 million Btu/hour).  The HRSG section of the CHP has a capacity of 47 MW-27 MW= 20 MW=68 MMBtu/hr which is below the threshold for this Subpart. Also, HRSGs associated with stationary turbines that are subject to 40 CFR 60 Subpart KKKK are exempt from this Subpart under 60.40b(i) Boilers TA-3-22-4 and TA-3-22-5 are 72.3 MMBtu/hr also below the threshold for this Subpart. |
| 40 CFR 60.40b, Subpart Dc | Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units | Yes | TA-3-22-4 and TA-3-22-5 | Applicable: facility has steam generating units for which construction, modification or reconstruction is commenced after June 9, 1989 and that have a maximum design heat input capacity of 29 MW or less, but greater than or equal to 2.9 MW. This regulation applies to boilers TA-3-22-4 and TA-3-22-5. This subpart does not apply to the HRSG because HRSGs associated with stationary turbines that are subject to 40 CFR 60 Subpart KKKK are exempt from this Subpart under 60.40c(e). |
| 40 CFR 60.330 Subpart GG | Stationary Gas Turbines | Yes | TA-3-22-CT-1 | Unit TA-3-22-CT-1 has a heat input = 160.4 MMBtu/hour which is greater than the 10 MMBtu/hour threshold. This unit was manufactured in 2003 and installed in 2005. The manufacture date is after the October 3, 1977 applicability date and before the applicability date of February 18, 2005, for Subpart KKKK. EPA Guidance document # 0300006 indicates that NSPS GG applicability follows the turbine even if it is relocated later, so the applicability is based on the manufacture date. The EPA guidance also states that turbines manufactured before the applicability date but installed after it are not subject to GG, further supporting that the applicability is based on the manufacture date of the turbine. The permittee also asserts that the turbine is subject to GG based on its NSPS construction date (email from Harvey Wiscovitch, 6/11/18) |
| 40 CFR Part 60 Subpart IIII (Quad-I) | Standards of Performance for Stationary Compression Ignition Internal Combustion Engines | No |  | Emergency diesel generator TA-3-1404-GEN was constructed in 2002 and installed in 2003, before the applicability dates for this Subpart. |
| 40 CFR Part 60 Subpart JJJJ (Quad -J) | Standards of Performance for Stationary Spark. Ignition Internal Combustion Engines | No |  | The only RICE at this site is the emergency diesel generator |
| 40 CFR Part 60 Subpart KKKK | Standards of Performance for Stationary Combustion Turbines | Yes | TA-3-22-CHP-1 | The HRSG portion of unit TA-3-22-CHP-1 has a heat input equal to 20 MMbtu/hour (based on CHP heat input minus combustion turbine input) which is greater than the 10 MMBtu/hour threshold. These units will be installed after the applicability date of February 18, 2005. The combustion turbine portion is subject to Subpart GG instead of KKKK because 60.4305(a) states that “Only heat input to the combustion turbine should be included when determining whether or not this subpart is applicable to your turbine” and the heat input of the combustion turbine has not changed since the applicability date of Feb 18, 2005 for Subpart KKKK. |
| NSPS 40 CFR 60 Subpart TTTT | Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units | No |  | This subpart does not apply because the HRSG has a base load below 25 MMBtu and is not capable of selling more than 25 MW to a power distribution system (no power from the TA-3 plant is sold) so the HRSG does not meet the thresholds in 60.5509(a)(1) and (2). |
| NSPS 40 CFR 60 Subpart UUUU | Emissions Guidelines for Greenhouse Gas Emissions and Compliance Times for Electric Utility Generating Units | No |  | This subpart requires State plans for GHG emissions from EGUs and does not include requirements for the facilities |
| NESHAP Subpart A  (40 CFR 61) | General Provisions | No | See sources subject to a Subpart in 40 CFR 61 | Applies if any other subpart applies. |
| MACT Subpart A  (40 CFR 63) | General Provisions | No | See sources subject to a Subpart in 40 CFR 63 | Applies if any other subpart applies. |
| 40 CFR 63 Subpart ZZZZ (Quad Z) | National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE MACT) | No |  | The facility operates a stationary RICE at an area source of HAP emissions, but unit TA-3-1404-GEN is exempt as an existing institutional emergency generator under 63.6585(f)(3). [based on Title V permit] |
| 40 CFR 63 Subpart DDDDD (5-Ds) | National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters | No |  | Facility has boilers but not subject to MACT 5-D since it is not a major source of HAP emissions (63.7485) |
| 40 CFR 63 Subpart JJJJJJ (6-Js) | National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources | No |  | Although this is an area HAP source (minor HAP source), no boilers at the Laboratory are subject to this subpart since they are gas-fired boilers. See 40 CFR 63.11195(e) and definitions at 40 CFR 63.11237: Gas-fired boiler includes any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or for periodic testing, maintenance, or operator training on liquid fuel. Periodic testing, maintenance, or operator training on liquid fuel shall not exceed a combined total of 48 hours during any calendar year. |
| 40 CFR 64 | Compliance Assurance Monitoring | No |  | There are no units with uncontrolled emissions for this unit are above the Title V major source thresholds. |
| 40 CFR 68 | Chemical Accident Prevention | No |  | An owner or operator of a stationary source that has more than a threshold quantity of a regulated substance in a process, as determined under §68.115 Threshold determination and 68.130 List of substances. Ammonia is created for the SCR from urea on-site by a hydrolyzer skid but is produced in response to demand from the SCR and not stored on-site. Urea is not a substance on the 68.130 Table 1 list. |
| 40 CFR 70 | Title V- State Operating Permit Programs | No |  | Operating Permit Program – is not applicable – New Mexico State has full delegated authority and Title V is administered under 20.2.70 NMAC. |
| 40 CFR 72 | Title IV – Acid Rain | No |  | The cogeneration unit is exempt under 72.6(b)(4)(ii) because it does not provide any power to any utility power distribution system for sale. |
| Title VI –  40 CFR 82 | Protection of Stratospheric Ozone | Yes | Applies to LANL; may not apply to TA-3 Power Plant facility | B- LANL maintains motor vehicle air conditioners and is subject to the rule.  F - LANL maintains equipment with regulated refrigerants and is subject to the rule.  H - LANL maintains equipment with regulated halons and is subject to the rule.  I - LANL is subject to the prohibitions on sale or distribution of HCFC containing equipment as specified in the rule |

1. **Exempt and/or Insignificant Equipment that do not require monitoring**:

**NSR Exempt Equipment** (not entered into Tempo database)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Unit Number** | **Source Description** | **Manufacturer** | **Model No.** | **Max Capacity** | **List Specific 20.2.72.202 NMAC Exemption (e.g. 20.2.72.202.B.5)** | **Date of**  **Manufacture**  **/Reconstruction2** |
| **Serial No.** | **Capacity Units** | **Insignificant Activity citation (e.g. IA List Item #1.a)** | **Date of Installation**  **/Construction2** |
| TA-3-22- FGHTR | Fuel Gas Heater | TBD3 | TBD3 | 0.7 | 20.2.72.202.B.5 | TBD3 |
| TBD3 | MMBtu/hr | N/A | 2018 |
| TA-3-1404-GEN | Emergency Diesel Generator | Cummins | DFLC-5554001 | 1250 | 20.2.72.202.B.3 | 2002 |
| E020369571 | kW (generator) | N/A | 2003 |
| TA-3-22- AHTR1 | Makeup Air Heater | Cambridge | M125 | 1.2 | 20.2.72.202.B.5 | TBD3 |
| TBD3 | MMBtu/hr | N/A | TBD3 |
| TA-3-22- AHTR2 | Makeup Air Heater | Cambridge | M125 | 1.2 | 20.2.72.202.B.5 | TBD3 |
| TBD3 | MMBtu/hr | N/A | TBD3 |
| TA-3-22- CHTR1 | Comfort Heater | Reznor | UDBP-75 | 0.1 | 20.2.72.202.B.1(a) | TBD3 |
| TBD3 | MMBtu/hr | N/A | TBD3 |
| TA-3-22- CHTR2 | Comfort Heater | Reznor | UDBP-75 | 0.1 | 20.2.72.202.B.1(a) | TBD3 |
| TBD3 | MMBtu/hr | N/A | TBD3 |
| TA-3-22- CHTR3 | Comfort Heater | Reznor | UDBP-75 | 0.1 | 20.2.72.202.B.1(a) | TBD3 |
| TBD3 | MMBtu/hr | N/A | TBD3 |

1 Insignificant activities exempted due to size or production rate are defined in 20.2.70.300.D.6, 20.2.70.7.Q NMAC, and the NMED/AQB List of Insignificant Activities, dated September 15, 2008. Emissions from these insignificant activities do not need to be reported, unless specifically requested.

2 Specify date(s) required to determine regulatory applicability.

**Applicant Notes**

**3 Information regarding the make, model, serial number and dates of manufacture will be provided at a later date under separate cover.**

1. **New/Modified/Unique Conditions** (Format: Condition#: Explanation):
   1. Date of [Monitoring Protocol](file:///\\aurora\aqb\AQB-Permits-Section\NSR-TV-Common\Monitoring%20Protocols) used for Turbine and Operating Situation\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. *To be developed as permit is drafted*
2. **For Title V action: Not applicable**
3. **Permit specialist’s notes to other NSR or Title V permitting staff concerning changes and updates to permit conditions.**
   1. Emission calculations were reviewed
   2. *Additional comments will be added as permit is drafted*