

2.2 Proposed Limits for PSD Applicability

As part of this Title V operating permit application, LANL is requesting facility-wide emission limits in order for the facility to be a minor source with respect to PSD permit requirements. The regulatory basis that necessitates this type of proposed limit is the fact that PSD applicability and the definition of minor versus major source are not based solely on the actual emissions of a source. Instead, the criteria are based on the potential to emit (PTE) of a facility, which assumes all operations operate continuously and at maximum capacities. At LANL, actual emissions are below the PSD major source thresholds. The proposed restrictions described below will become enforceable emission limits in the operating permit. This will lower the PTE for regulated pollutants to below levels that define a facility as a major source and subject to PSD permitting.

The PSD program contains two different thresholds that define a major source. If a facility is within a list of 28 source categories, it is a major source if the PTE for any regulated pollutant is 100 tons or more per year. The list of 28 source categories is included as Table 1 of the New Mexico PSD regulation, 20.2.74 NMAC. For a facility that is not within the listed source categories, the PTE that defines a major source is 250 tons or more per year. Fugitive emissions are only included in major source applicability if the source is one of the listed 28 source categories. Emissions from all activities that generate emissions, including the operating permit program IEUs must be included in PSD major source applicability determinations.

The mission of LANL is not within one of the listed 28 source categories, so the applicable major source threshold for the facility is 250 tons per year. However, the PSD rule requires that separate activities or processes within a facility may fall under one of the 28 listed source categories, even though the predominant facility activity is not within the listed source categories.

Operations at LANL include two activities that are within a listed source category. The three fuel-fired boilers at the TA-3 power plant discussed in Section 3.11 of this application qualify as “Fossil fuel-fired steam electric plants of more than 250

million Btu/hr heat input”. All remaining fuel-fired boilers at LANL, which are discussed in Sections 3.4 and 3.13 of this application, are considered to be within the listed source category of “Fossil fuel boilers (or combinations thereof) totaling more than 250 million Btu/hr heat input”.

In summary, in order for all operations at LANL to stay below PSD major source thresholds, the PTE of regulated pollutants must be limited in the following three ways:

- For LANL as whole, the PTE for each regulated pollutant must be less than 250 tons per year;
- For the TA-3 Power Plant boilers, the PTE must be less than 100 tons per year; and
- For all other boilers, the PTE must be less than 100 tons per year.

20.2.74.7.AI NMAC defines pollutants regulated in the PSD program as “any air pollutant, the emission or ambient concentration of which is regulated pursuant to the Act”, where “Act” is defined to be the federal Clean Air Act (CAA). Certain specific air pollutants are excluded from PSD review by Section 112 (b) (6) of the federal CAA that states: “The provisions of Part C (Prevention of Significant Deterioration) shall not apply to pollutants listed under this section”. This excludes HAPs regulated under Section 112 NESHAP and MACT standards and regulated substances under the Section 112 (r) prevention of accidental releases requirements. Thus, pollutants regulated under the PSD program are all criteria pollutants as well as additional non-criteria pollutants regulated under federal New Source Performance Standards (NSPS).

Criteria pollutants are defined as the following: nitrogen oxides (NO_x), carbon monoxide (CO), particulate matter less than 10 micron in size (PM₁₀), sulfur dioxide (SO₂), and ozone (O₃). For PSD purposes, the emissions of volatile organic compounds (VOCs) are regulated as an ozone precursor. Non-criteria pollutants regulated under an NSPS are: total particulate matter (PM), fluorides, hydrogen sulfide, reduced sulfur compounds, total reduced sulfur, sulfuric acid mist, municipal waste combustor organics, municipal

waste combustor acid gases, and municipal solid waste landfill emissions. Of the non-criteria pollutants listed, only PM is known to be emitted by activities at LANL. Therefore, only criteria pollutants and PM must be limited in order for LANL operations to stay below major source thresholds with respect to PSD.

Table 2.2-1 contains the requested allowable emission rates to limit the PTE of operations below PSD major source status. All emission limits proposed are on a 12-month rolling average basis.

Table 2.2-1. Proposed Emission Limits for PSD Applicability

Pollutant	Facility-Wide Limits^(a) (ton/year)	TA-3 Power Plant Limits^(b) (ton/year)	Miscellaneous Boilers Limits^(c) (ton/year)
NO _x	245	99.6	80
CO	225	81.3	80
PM or PM ₁₀	120	15.7	50
SO ₂	150	36.9	50
VOC	200	11.1	50

^(a) Limits will apply to the sum of all non-fugitive emission sources described in Chapter 3.

^(b) Limits already apply to the (3) boilers at the TA-3 Power Plant per NSR Permit No. 2195B.

^(c) Limits will apply to (3) boilers at TA-21, as described in Section 3.13, and all other small boilers as described in Section 3.4.

Proposed monitoring, recordkeeping, and reporting for specific source categories to demonstrate compliance with the proposed limits in Table 2.2-1 are described in Chapter 3 of this application. Compliance with the proposed facility-wide emission limits will be demonstrated by calculating actual, non-fugitive emissions, of all sources that are not insignificant, on a semiannual basis and reporting the results to NMED twice per year.