

2.1 Facility-Wide Emissions Summary

Table 2.1-1 shows facility-wide annual emissions of criteria pollutants for the previous two years. The table presents emissions by source category and is presented to provide a general overview of actual operations at LANL. Emissions from regulated source categories and from relevant insignificant emission unit source categories are included. Detailed descriptions of each regulated source category and the applicable requirements are included in Chapter 3 of this application. Descriptions of the insignificant emission units are included in Section 2.4. This table demonstrates that it is feasible for the Laboratory to comply with facility-wide allowable emission limits to qualify as a minor source with respect to PSD. A more detailed discussion of PSD applicability is included in Section 2.2.

Table 2.1-2 shows facility-wide annual emissions of HAPs for the previous two years. Not all sources listed in Table 2.1-1 are sources of HAPs. Additionally, under Title III emissions from area or fugitive sources must be included in facility-wide totals when determining major or minor source status. Therefore fugitive sources are included in Table 2.1-2 that do not appear in Table 2.1-1. This table demonstrates that it is feasible for the Laboratory to comply with facility-wide allowable emission limits to qualify as a minor source with respect to Title III of the 1990 CAAA. A more detailed discussion of 1990 CAAA Title III applicability is included in Section 2.3.

Table 2.1-1. Past Actual Facility-Wide Emissions of Criteria Pollutants at LANL

Source Category	NO _x (tons/year)		SO _x (tons/year)		CO (tons/year)		VOC (tons/year)		PM/PM ₁₀ (tons/year)	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
Air Curtain Destructors ^{(a), (b)}	NA	1.88	NA	0.06	NA	1.00	NA	2.36	NA	1.15
Asphalt Production ^(a)	0.04	0.03	0.01	0.01	0.70	0.52	0.01	0.01	0.12	0.09
Beryllium Machining ^(a)	--	--	--	--	--	--	--	--	1.0x10 ⁻⁵	1.2x10 ⁻⁵
Small Boilers/Heaters ^(e)	23.6	25.1	0.2	0.2	20.1	21.4	1.5	1.6	2.1	2.2
Carpenter Shops	--	--	--	--	--	--	--	--	0.18	0.18
Chemical Use ^(a)	--	--	--	--	--	--	10.70	18.60	--	--
Degreasers ^(a)	--	--	--	--	--	--	0.04	0.01	--	--
Internal Combustion ^(c)	8.82	6.43	0.78	0.57	1.95	1.42	0.5	0.36	0.45	0.33
Painting Operations ^(f)	--	--	--	--	--	--	0.98	1.57	--	--
Paper Shredder ^(a)	--	--	--	--	--	--	--	--	0.0005	0.0007
TA-3 Power Plant ^(a)	62.23	73.89	3.94	0.72	15.19	18.08	2.04	2.46	2.98	3.50
Rock Crusher ^{(a), (d)}	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Storage Tanks ^(g)	--	--	--	--	--	--	0.06	0.04	--	--
TA-21 Steam Plant ^(a)	1.70	1.85	0.01	0.01	1.43	1.55	0.09	0.10	0.13	0.14
Total^(h)	96.4	109.2	5.0	1.6	39.4	44.0	15.9	27.1	6.0	7.6

- (a) Actual emissions shown are from LANL's 2000 and 2001 annual emission inventory. All calculations and background data included in emission inventory submitted.
- (b) The air curtain destructors began operating at LANL in September 2001 as part of fire recovery efforts. They are scheduled to be removed by October 2003 and will not be included in LANL's Title V permit. "NA" means not applicable.
- (c) Estimates include emissions from emergency stand-by generators, which are insignificant emission units under Title V.
- (d) The rock crusher was not operated in 2000 or 2001.
- (e) Includes boilers historically included in the emission inventory and numerous small boilers and heaters that qualify as Insignificant Emissions Units.

- (f) Painting operations are less than 2 tons and qualify as an insignificant activity.
- (g) Emissions from diesel fuel tanks calculated using EPA TANKS 4.0 software.
- (h) Emissions from a diesel-fired water pump are included in LANL's 2000 and 2001 emission inventory. In November 2001 the water pump was transferred to the County and is no longer owned or operated by LANL. As such, it is not included here and will not be included in the LANL Title V permit.

Table 2.1-2. Past Actual Facility-Wide Emissions of Hazardous Air Pollutants at LANL

Source Category	HAPs (tons/year)	
	2000	2001
Air Curtain Destructors ^(a)	NA	0.20
Asphalt Production	0.01	0.01
Beryllium Machining	8.0x10 ⁻⁶	9.5x10 ⁻⁶
Small Boilers/Heaters ^(b)	0.51	0.54
Chemical Use ^(c)	6.50	7.37
Degreasers	0.04	0.01
Internal Combustion ^(d)	0.01	0.01
Open Burning/Open Detonation ^(e)	0.03	0.03
Painting Operations ^(e)	0.98	1.57
TA-3 Power Plant	0.71	0.85
Remediation ^(e)	<1	<1
Rock Crusher ^(f)	0.00	0.00
TA-21 Steam Plant	0.03	0.04
Total	9.82	11.63

(a) The air curtain destructors first began operating in September 2001 as part of fire recovery efforts.

They are scheduled to be removed by October 2003 and will not be included in LANL's Title V permit.

"NA" means not applicable.

- (b) Includes boilers historically included in LANL's emissions inventory and numerous small boilers and heaters that qualify as insignificant emission units.
- (c) Emissions from chemical use are estimated from chemical purchasing records and include fugitive and non-fugitive releases. All calculations and background data are included in the emissions inventory submittal.
- (d) Estimates include emissions from emergency stand-by generators and portable generators, which are both insignificant emission units under Title V.
- (e) Includes some Insignificant Emissions Units.
- (f) The rock crusher was not operated in 2000 or 2001.