



**Risk Reduction & Environmental Stewardship Division**

Meteorology & Air Quality Group  
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Date: April 14, 2003  
 Refer to: RRES-MAQ:03-075

Mr. Ned Jerabek  
 Air Quality Bureau  
 New Mexico Environment Department  
 2048 Galisteo Street  
 Santa Fe, NM 87505

Dear Mr. Jerabek:

On November 27, 2002, Los Alamos National Laboratory (LANL) submitted an updated Operating Permit application. Since that submittal, LANL has identified some wastewater storage tanks that were originally omitted. The tanks were initially left out because of the uncertainty of 40 CFR 60 New Source Performance Standards (NSPS) Subpart Kb applicability to wastewater tanks with low levels of organics. The following table describes the wastewater tanks.

Location	Date Installed	Capacity (gallons)	Diameter (ft)	Length (ft)	Roof Type	Liquid Stored
TA-53-945-1	1999	30,456	12	36	Fixed	Wastewater
TA-53-945-2	1999	30,456	12	36	Fixed	Wastewater
TA-53-945-3	1999	30,456	12	36	Fixed	Wastewater
TA-50-248-17	1998	17,000	Horizontal oval: 26 ft length x 7.25 ft width x 16.25 ft height		Fixed	Wastewater
TA-50-248-SE	1998	20,000	14	16	Fixed	Wastewater
TA-50-248-SW	1998	20,000	14	16	Fixed	Wastewater
TA-50-248-NE	1998	20,000	14	16	Fixed	Wastewater
TA-50-248-NW	1998	20,000	14	16	Fixed	Wastewater

These tanks are part of radioactive liquid waste treatment systems at Technical Area (TA) 50 and 53. These treatment systems have Waste Acceptance Criteria (WAC) that limit the constituents in all incoming waste streams. The WAC, applicable to both TA-50 and TA-53, limits the Total Toxic Organics to 25 mg/l and inorganic Hazardous Air Pollutants (HAPs) to 24.7 mg/l. Total Toxic Organics include some organics that are not Volatile Organic Compounds (VOC) and some that are organic HAPs. Only the VOC contaminants are likely to contribute

to air emissions. However, conservative air emission estimates from the tanks are calculated on the maximum annual throughput of the regulated contaminants at the maximum levels of 25 mg/l for VOC and 50 mg/l for HAPs. The calculations overly assume 100% evaporation of the regulated contaminants.

The four 20,000 gallon tanks at TA-50 are part of the evaporation process. The evaporation process is designed to treat a maximum of 325,000 gallons per year. Assuming the maximum contaminant concentration and the maximum treatment rate, the regulated air pollutants from all four tanks is estimated to be 0.068 tons per year of HAPs and 0.034 tons per year of VOC.

Assuming weekly turnovers for the 17,000 gallon tank at TA-50 that holds RO concentrate and the maximum contaminant concentration, the regulated air pollutants from the tank is estimated to be 0.18 tons per year of HAPs and 0.09 tons per year of VOC.

The maximum throughput for each of the TA-53 tanks is 110,000 gallons per year. When a tank reaches 80-90% of its capacity, it is isolated and the contents are held for 90 days to allow for radioactive decay of isotopes. Therefore, HAP and VOC contents and emissions from each tank at TA-53 will be less than 0.02 and 0.01 ton per year respectively.

Other than the NSPS requirements to maintain documentation for the dimensions of the storage vessel and an analysis of the capacity of the storage tank (40 CFR §60.116b (a) and (b)), the tanks qualify as insignificant sources with air emissions less than 1 ton per year.

On February 24, 2003, EPA proposed a revision to the NSPS Subpart Kb. The proposed revision would completely exempt the following classes of tanks:

- Less than 75 m<sup>3</sup> (19,815 gallons) in capacity,
- Greater than 151 m<sup>3</sup> (39,894 gallons) in capacity with a content vapor pressure less than 3.5 kPa (0.51 psi, 26.4 mm Hg),
- Equal to or greater than 75 m<sup>3</sup> and less than 151 m<sup>3</sup> in capacity with a content vapor pressure less than 15 kPa (2.18 psi, 112.7 mm Hg), and
- Process tanks.

If and when the proposed regulation becomes final, all of the tanks listed in this letter and in LANL's Operating Permit application will qualify as insignificant activities.

This information is also being submitted to EPA Region 6. In addition, a copy of this notice will be posted on our website (<http://www.airquality.lanl.gov/OpPermitGenInf.htm>). If you have any questions concerning this submittal, please contact me (505-665-8862) or Jackie Hurtle (505-665-4380) at LANL's Meteorology and Air Quality Group (RRES-MAQ), permitting section.

Sincerely,

*Original signed by:*

Scott Miller  
Deputy Group Leader  
Meteorology and Air Quality Group

*Mr. Ned Jerabek*  
*RRES-MAQ:03-075*

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*April 14, 2003*

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