

## STATEMENT OF BASIS

To: Reviewers

Through: Lori Bocchino, Operating Permit Program Manager

From: Despina Nikolova, Air Quality Engineer

Subject: Draft Operating Permit 3-0-253, Fremont County Solid Waste Disposal District (FCSWDD), Sand Draw Landfill

Date: March 14, 2013

### **Introduction:**

Attached for your review is the draft Wyoming Air Quality Standards and Regulations (WAQSR) Ch 6, Sec 3 operating permit for the Sand Draw Landfill. The facility is an active municipal solid waste landfill for Fremont County. The Sand Draw Landfill began receiving solid wastes in 1983, and it is expected to reach its capacity in approximately 2037. Emission sources at the facility include the Municipal Solid Waste Landfill (LND-1), a used oil furnace, and two above ground storage tanks (1,000 gal diesel and 500 gal gasoline). The tanks have no applicable requirements based on their size.

### **Permitting History:**

There are no permits issued to the Sand Draw Landfill under WAQSR Ch 6, Sec 2.

### **Applicable Requirements:**

The used oil furnace is subject to the visible emission limit in Ch 3, Sec 2 and the NO<sub>x</sub> limit of 0.60 lb/MMBtu heat input under Ch 3, Sec 3.

WAQSR Chapter 4, Section 4 requires sources with a design capacity of greater than 2.5 million megagrams (2.75 million tons) and 2.5 million cubic meters (3.27 million yards) to obtain Chapter 6, Section 3 operating permits. The Sand Draw Landfill meets those criteria and is required to have an operating permit. WAQSR Chapter 4, Section 4 requires landfills to determine their Non-Methane Organic Compounds (NMOC) emissions as outlined in 40 CFR 60, Subpart WWW - *Standards of Performance for Municipal Solid Waste Landfills*. Based on Tier 1 calculations, the facility estimates NMOC emissions to be less than 50 megagrams/yr (55 tons per year). Additional NMOC control measures are not required.

### **Periodic Monitoring:**

Periodic monitoring for visible emissions from the used oil furnace is not required because the heater is unlikely to produce any visible emissions. However, incidental observations of visible emissions from the furnace shall be recorded and corrective actions taken, if necessary.

The permittee must calculate NMOC emissions from the landfill annually using the procedures specified in §60.754 of 40 CFR 60, Subpart WWW. The site-specific value derived from Tier 2 testing, if performed, shall be retested every 5 years in accordance with §60.754 while the landfill is in operation. If calculated NMOC emissions meet or exceed 50 Mg/yr (55 TPY) the permittee shall

comply with the collection and control system requirements specified in §60.752(b)(2) of 40 CFR 60, Subpart WWW. All monitoring shall be continued until such date that the landfill is closed. A Closure Notification shall be submitted in accordance with §60.757(d). If NMOC emission controls were never required, and all WAQSR Ch 6, Sec 3 operating permit conditions are satisfied at the time of closure, the permittee may request that their Ch 6, Sec 3 permit be rescinded in compliance with §60.752(d).

The used oil furnace is fuel burning equipment as defined in WAQSR Chapter 1. This uncontrolled unit emits oxides of nitrogen (NO<sub>x</sub>) in relatively small quantities (<0.1 tons per year of NO<sub>x</sub>). In the absence of more stringent permit limits, the NO<sub>x</sub> emission limit for fuel burning equipment defaults to 0.60 pounds per million BTUs (lb/MMBtu). Generally, small fuel burning sources like this unit operate at a steady state; emission variations are not likely. AP-42 emission factors were developed by the EPA to help estimate the quantity of a pollutant from a given source type. In developing an AP-42 emission factor, emission data is averaged from sources of similar size and type, and the emission factor is then assigned a reliability rating based on quality and quantity of the data used. The rating scale runs from A to E with an A rating providing the highest quality. The AP-42 emission factor for small waste oil burning sources is 0.14 lb/MMBtu with a C rating. Considering the amount of data evaluated to develop the AP-42 emission factor and that the WAQSR Ch 3, Sec 3 emission limit is more than twice the AP-42 value, the Division feels it is extremely unlikely this source will operate out of compliance and considers further testing of the used oil furnace to be uneconomical.