

STATEMENT OF BASIS

To: Reviewers

Through: Lori Bocchino, Operating Permit Program Manager

From: Despina Nikolova, Air Quality Engineer

Subject: Draft Operating Permit 3-2-183, City of Casper Solid Waste Division,
Casper Solid Waste Management Facility

Date: March 13, 2013

Introduction:

Attached for your review is the draft renewal Wyoming Air Quality Standards and Regulations (WAQSR) Ch 6, Sec 3 operating permit for the Casper Solid Waste Management Facility. The facility is comprised of three adjacent operations including the Casper Transfer Station; the Municipal Solid Waste Balefill (LND-1), which was closed and capped in October 2009; and the Casper Regional Landfill (LND-2). The final closure completion package for LND-1 was submitted on December, 16 2009. The Casper Regional Landfill (LND-2) started accepting waste in 2008.

Historical Permits:

Waiver AP-1110 (9/11/03): was issued to permit two, North and South Municipal Solid Waste Baler baghouses (North and South MSWB), which were constructed in 1984, and a used oil heater (HTR-1) that was installed in 2001. The dust collectors are housed within the baler building located at the transfer station facility, and the waste oil burner is located in the equipment storage building at the balefill. Waiver AP-1110 limits opacity from the baghouses and heater to 20 percent, and requires that records be kept of the quantity and source of the oil burned in the used oil fired heater.

Permit CT-6189 (8/16/07): was issued for the construction of the Casper Regional Landfill (LND-2) and requires compliance with 40 CFR 60 Subpart WWW - *Standards of Performance for Municipal Solid Waste Landfills*, and 40 CFR 63 Subpart AAAA - *National Emission Standards for Municipal Solid Waste Landfills*. Subpart AAAA requirements are not included in this operating permit because the facility does not have a bioreactor and does not have estimated uncontrolled emissions equal to or greater than 50 Megagrams per year (Mg/yr) Non-Methane Organic Compounds (NMOC); therefore the facility is currently not subject to the subpart.

Waiver AP-7701 (5/27/08): was issued to acknowledge the Posi-Shell operations, which consists of a spray-applied cement-mortar coating as part of the landfilling operation, but has no applicable requirements.

Waiver wv-11185 (10/12/10): was issued for the installation of two 6,000 gallon above-ground diesel storage tanks and the decommissioning of the 6,000 gallon below-ground diesel vault. The notification of start-up was sent to the Division on 10/28/2010. The storage tanks do not have any applicable requirements based on their size.

Applicable Requirements:

In addition to the permit requirements listed above, the used oil heater (HTR-1) is limited to NO_x emissions of 0.60 lb/MMBtu heat input under Ch 3, Sec 3.

WAQSR Ch 4, Sec 4 requires sources with a design capacity of greater than 2.5 million megagrams and 2.5 million cubic meters to obtain a Ch 6, Sec 3 operating permit. This facility meets those criteria and is required to have an operating permit. Ch 4, Sec 4 also requires landfills to determine their NMOC emissions as outlined in 40 CFR 60 Subpart WWW. Based on Tier 2 testing conducted in 2010, the facility estimates NMOC emissions to be less than 50 megagrams/yr (55 tons per year) of NMOC from LND-1 and LND-2. Additional NMOC control measures are not required.

Periodic Monitoring:

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 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). 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).

North MSWB & South MSWB baghouse emissions will be monitored semiannually to detect if visible emissions are present. Periodic monitoring for visible emissions from the used oil fired heater (HRT-1) are not required because the heater is unlikely to produce visible emissions in excess of 20 percent opacity. However, incidental observations of visible emissions from the heater shall be recorded and corrective actions taken, if necessary. Records must be kept for the quantity and source of used oil burned in the heater.

The used oil heater (HRT-1) is fuel burning equipment as defined in WAQSR Chapter 1. This uncontrolled unit emits oxides of nitrogen (NO_x) in relatively small quantities (<0.1 tons per year of NO_x). In the absence of more stringent permit limits, the NO_x 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 heater (HRT-1) to be uneconomical.