

STATEMENT OF BASIS

To: Reviewers
Through: Lori Bocchino, Operating Permit Program Manager
From: Maggie Endres, Operating Permit Program
Subject: Draft Chapter 6, Section 3 Operating Permit 3-3-139, Wyoming Pipeline Company, Mush Creek Station
Date: April 26, 2011

Introduction:

Attached is a draft renewal Wyoming Air Quality Standards and Regulations (WAQSR) Ch 6, Sec 3 Operating Permit 3-3-139 for Mush Creek Station. Crude oil is received by pipeline and trucks from local production and connecting carriers, and is delivered out via pipeline only to refining centers. Product levels in the tanks are relatively constant since product is received and delivered simultaneously. There are three cone-roof storage tanks at this location: one 4,800 barrel (MC-99), and two 9,600 barrel (MC-100 and MC-101). A fourth tank has an internal floating roof, and is 52,400 barrels (MC-102).

Applicable Requirements:

The 4,800 and 9,600 barrel tanks were constructed in 1949. The 52,400 barrel tank was constructed in 1960. These tanks predate the Division's construction permitting requirements. The tanks also predate the New Source Performance Standards (NSPS) for tanks.

Waiver AP-4984 (8/17/06): allowed modification of the largest tank (MC-102), by replacing the cone roof with an internal floating roof. The roof replacement is not defined as new construction, reconstruction or a modification, and the replacement will result in lower emissions, so the tank will not be subject to the requirements of 40 CFR 60 Subpart Kb.

A garage heater and a technician shop heater (which are both propane fired) are listed as insignificant sources. They were previously thought to be direct fired, but it has since been clarified that they produce heat through indirect heat transfer. They are subject to the NO_x limit under WAQSR Ch 3, Sec 3. These units emit oxides of nitrogen (NO_x) in relatively small quantities (less than 1 ton per year of NO_x). In the absence of more stringent permit limits, the NO_x emission limit for fuel burning equipment defaults to 0.20 pounds per million BTUs (lb/MMBtu) for sources constructed after April 9, 1973. Generally, small fuel burning sources like these units are uncontrolled and 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 units (less than 100 MMBtu/hr) is 0.1 lb/MMBtu with a B rating. Considering the amount of data evaluated to develop the AP-42 emission factor and considering that the WAQSR Ch 3, Sec 3 emission limit is twice the AP-42 value, the Division feels it is extremely unlikely these sources will operate out of compliance and considers further testing of these sources to be uneconomical.