

STATEMENT OF BASIS

To: Reviewers
Through: Lori Bocchino, Operating Permit Program Manager
From: Hillary Richard, P.E., Operating Permit Engineer
Subject: Draft Chapter 6, Section 3 Operating Permit 3-3-052, Tallgrass Interstate Gas Transmission, LLC, Guernsey Compressor Station
Date: December 12, 2012 (*Amended February 15, 2013*)

Introduction

Attached for your review is the draft renewal of the Wyoming Air Quality Standards and Regulations (WAQSR) Ch 6, Sec 3 operating permit for the Tallgrass Interstate Gas Transmission, LLC, Guernsey Compressor Station. The facility is a booster station which receives processed gas from the Tallgrass Midstream, LLC Casper and Douglas plants via pipeline. Pipeline gas enters the facility, is compressed and then returned to the pipeline for further transmission. Permitted emission sources at the facility include: two 2,000-hp natural gas fired Clark TLA-6 compressor engines, one 360-hp natural gas fired Caterpillar G3408 emergency generator engine, and four tanks used for oil and antifreeze storage, all with capacities of 400 barrels or less. Three of the four storage tanks were constructed prior to the initial construction permit, CT-1070.

Permitting History

Permit CT-1070 (*April 4, 1994*)

One of the Clark TLA-6 compressor engines was constructed prior to 1974 and therefore was not subject to WAQSR Chapter 6, Section 2 permitting requirements. Permit CT-1070 was issued on April 4, 1994 for construction of the second Clark TLA-6 compressor engine and this permit assigned emission limits for NO_x, CO, and VOCs to both compressor engines. As part of the issuance process for the initial operating permit, 30-052, the Administrator removed the VOC emission limits. No requirements were made for the existing three storage tanks at the site. This permit has been superseded by MD-12118A.

Waiver AP-AS8 (*April 29, 1998*)

Waiver AP-AS8 was issued April 29, 1998 for the installation of a 400 barrel (bbl) storage tank. The tank was required to comply with the New Source Performance Standards (40 CFR Part 60), Subpart Kb requirements at the time of permit issuance. The regulatory requirements of 40 CFR 60, Subpart Kb were updated in October 2003. The tank is not of sufficient volume to be an affected source under the updated 40 CFR 60, Subpart Kb. Requirements from Subpart Kb were removed initially with the Chapter 6, Section 3 Operating Permit 3-2-052 and are omitted again in this operating permit renewal draft. This waiver has been superseded by MD-12118A.

Waiver AP-1844 (*May 5, 2004*) / AP-2209 (*August 4, 2004*)

Permitting for one 406-hp Caterpillar G3408 emergency generator engine with air-fuel ratio controller (AFRC) and non-selective catalytic reduction (NSCR) catalyst was waived on May 5, 2004 (AP-1884). This waiver established emission limits for the generator for NO_x, CO, and VOCs, as well a limitation on the maximum amount of hours per year that the generator shall be run. The Division superseded AP-1844 with the issuance of another waiver on August 4, 2004 (AP-2209) to reduce the frequency of emission monitoring required for the emergency generator engine. Waiver AP-2209 has been superseded by MD-12118A.

Permit Modification MD-12118 (*November 3, 2011*) / MD-12118A (*November 16, 2012*)

Permit Modification MD-12118 was issued on November 3, 2011 to revise the emission limits for the

existing 2,000-hp Clark TLA-6 compressor engine so that they are consistent with the limits set for the second 2,000-hp Clark TLA-6 compressor engine. This mod also required initial performance testing of the existing Clark TLA-6 compressor engine which was completed on February 2, 2012. The mod further clarified the limitation on the maximum amount of hours per year that the Caterpillar G3408 emergency generator shall be run, and established that compliance with this limit shall be shown with an hour meter or equivalent device. The mod also reduced the frequency of emissions monitoring required for the emergency generator engine. The modification was amended (MD-12118A) on November 16, 2012 to correct the power rating of the Caterpillar G3408 emergency generator engine to 360-hp rather than the previously permitted value of 406-hp.

Applicable Requirements

In addition to the requirements of the WAQSR Chapter 6, Section 2 construction permits for the Guernsey Compressor Station, the facility is also required to comply with the visible emission limits set forth in WAQSR Chapter 3, Section 2.

The compressor engines and the emergency generator engine currently installed at the facility are subject to the applicable requirements of 40 CFR 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) as existing sources based on their date of construction. These engines are NOT subject to 40 CFR 60, Subpart JJJJ – Requirements for Stationary Spark Ignition Internal Combustion Engines because they do not meet the definition of new or reconstructed engines based on their date of construction.

As summarized under Waiver AP-AS8, the 400-bbl storage tank is no longer subject to 40 CFR 60, Subpart Kb.

Periodic Monitoring

Periodic monitoring consists of the following:

- For *visible emissions* from the engines at the facility, monitoring the fuel fired in each unit to ensure natural gas is the sole fuel source.
- Quarterly monitoring of *NO_x emissions* from the Clark TLA-6 compressor engines using EPA reference methods or the Division's portable analyzer monitoring protocol.
- Every five years, *CO emissions* from the Clark TLA-6 compressor engines are to be tested using EPA reference methods or the Division's portable analyzer monitoring protocol.
- Triennial monitoring of *NO_x and CO emissions* from the Caterpillar G3408 emergency generator engine using EPA reference methods or the Division's portable analyzer monitoring protocol.

CAM does not apply because there are no control devices installed on the Clark TLA-6 compressor engines, and the Caterpillar G3408 emergency generator engine does not have pre-control emissions greater than the major source threshold of 100 tons per year.

Addendum (Amended February 15, 2013)

Condition S1 is updated to reflect the state's current ambient standards for Nitrogen dioxide, Sulfur dioxide, and ozone which were revised on December 19, 2012. As this change is administrative in nature, no additional public notice period is warranted.