

## STATEMENT OF BASIS

To: Reviewers  
Through: Lori Bocchino, Operating Permit Program Manager  
From: Brian Fehr, Air Quality Engineer  
Subject: Draft Operating Permit 3-1-216, Colorado Interstate Gas Company, King Compressor Station  
Date: July 2, 2012

### Introduction:

Attached is the draft renewal Wyoming Air Quality Standards and Regulations (WAQSR) Ch 6, Sec 3 operating permit for the Colorado Interstate Gas (CIG), King Compressor Station. The King facility accepts pipeline quality gas for compression into the CIG's mainline. Emissions sources include three 1,100 hp White Superior 8GTLB compressor engines, a 265 hp emergency generator, a 38 hp emergency generator, a 2.0 MMBtu/hr steam boiler, and three storage tanks. The engines and steam boiler are all natural gas-fired.

### Permitting History:

Permit CT-833 (5/18/89): allowed for the construction of two 1,100 hp compressor engines and supporting equipment.

Permit CT-915 (4/19/91): issued for the installation of a third 1,100 hp compressor engine.

Permit OP-240 (11/17/92): confirmed construction and approved operation of the facility.

Permit OP-240A (2/29/08): revised the operating plan for the three compressor engines. Applicable requirements include: NO<sub>x</sub> and CO emission limits for all three compressor engines, emergency generator, and steam boiler; an operating hours limit for the emergency generator; and compliance with the facility's operating plan for the compressor engines.

Waiver wv-11808 (3/28/11): allowed installation of one Generac QTA25 emergency generator. The applicable requirement from this waiver is an operating hours limit for the engine.

### Applicable Requirements:

In addition to the permit requirements listed above, the sources at the facility are subject to visible emission limits in accordance with WAQSR Ch 3, Sec 2.

The permittee must also comply with any applicable requirements from Ch 5, Sec 2 New Source Performance Standards, and 40 CFR Part 60, Subpart JJJJ - *Stationary Spark Ignition Internal Combustion Engines*. Affected engines are defined at §60.4230 of the subpart. Currently, the Generac emergency generator engine is the only engine at the facility that must meet the requirements under 40 CFR Part 60, Subpart JJJJ. However, as required by the temporary engine replacement condition of the operating permit, if an engine is replaced or reconstructed, subpart applicability will need to be reevaluated and a statement regarding applicability submitted to the Division.

Per 40 CFR 63, Subpart ZZZZ *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, the three White Superior 8GTLB engines and the two generator engines are subject to the requirements of 40 CFR 63 Subpart ZZZZ at a major source.

Per 40 CFR 63, Subpart DDDDD *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters*, the 2.0 MMBtu/hr steam boiler is subject to the requirements of 40 CFR 63, Subpart DDDDD.

**Periodic Monitoring**

For periodic monitoring of visible emissions from all sources, the permittee shall monitor the type of fuel used to ensure natural gas is the sole fuel source for these units. Periodic emissions monitoring for the three White Superior 8GTLB engines shall consist of emission testing every two years for NO<sub>x</sub> and every five years for CO. The frequency of the NO<sub>x</sub> testing may be reduced to once every four years if the biennial test results show emissions are less than or equal to 75 percent of the emission limit for the unit. If the results of any subsequent testing exceed 75 percent of the limit, biennial NO<sub>x</sub> testing shall resume. For the NO<sub>x</sub> and CO emission testing, the permittee shall use the Division's portable analyzer monitoring protocol or EPA reference methods. Operating hours for the two emergency generators shall be monitored monthly.

The natural gas fired steam boiler is defined in WAQSR Ch 1 as fuel burning equipment emitting less than 1 ton per year (TPY) NO<sub>x</sub> and CO. This unit is uncontrolled and operates at a steady state; emission variations are not likely. Given the low emissions expected from this unit, the Division has determined that further monitoring of this source is uneconomical.

The Cummings emergency generator operates on an as needed basis and has limited annual operating hours. Estimated emissions from this unit are less than 1 TPY of NO<sub>x</sub> and CO. Given the low emissions generated from this engine's limited use, the Division has concluded that monitoring of operating hours is sufficient and further monitoring of this source is uneconomical.