

STATEMENT OF BASIS

To: Reviewers

Through: Lori Bocchino, Operating Permit Program Manager

From: Brianna Chambers, Air Quality Engineer

Subject: Draft Operating Permit 3-3-106, Crown Cork and Seal Company, Inc., Crown Beverage Packaging

Date: December 6, 2011

Introduction:

Attached is the draft renewal Wyoming Air Quality Standards and Regulations (WAQSR) Chapter 6, Section 3 operating permit for Crown Cork and Seal Company, Inc., Worland Plant #02. The plant is a two-piece aluminum can manufacturing facility. Emission sources include three can line printers, three can line printer ovens, two spray machines, two can line inside bake ovens, a can line washer dryer, washer hot water heater, Co-Ray-Vac heating system, Modine air make-up system, and a Dock water heater.

Permitting History:

CT-132 (4/18/1978)/OP-49 (12/29/1978): were issued for the construction and operation of two steel drawn and ironed can lines.

MD-128 (6/18/1990)/OP-223 (12/20/1991): permitted the construction and operation of a third can line. The permit limits the VOC content of the coating solids and requires compliance with 40 CFR 60 Subpart WW Standards of Performance for the Beverage Can Surface Coating Industry. The standard limits the VOC content of the overvarnish and inside spray coating for all three can lines.

Waiver AP-C49 (1/11/1999): allowed increased production from two of the can lines and designated the third can line as a standby unit.

Permittee letter (5/23/2003): The permittee submitted a letter and drawing showing a bottleneck downstream of the can lines, which only accepts cans from two lines. This letter also stated that the third line is electronically locked out when two others are in use. This statement was added to the modified operating permit (3-1-106-1).

Waiver AP-2381 (9/21/2004): was issued for the replacement of an existing decorator with a new decorator capable of applying eight colors, and replacement of a 2.0 MMBtu/hr oven with a new 2.75 MMBtu/hr oven on the decorating line. Operating permit 31-106-1 was amended to incorporate these changes, remove equipment no longer at the facility, and indicate can line #2 as the "swing" line rather than can line #3.

Waiver AP-8404 (11/20/2008): replaced an existing decorator with a new decorator capable of applying six colors, and replacement of a 2.0 MMBtu/hr oven with a new 2.75 MMBtu/hr oven on the decorating line.

Applicable Requirements:

In addition to the requirements listed above, applicable requirements include the visible emissions limit set forth in WAQSR Chapter 3, Section 2, and the NO_x emission limit for the washer hot water heater, Co-Ray-Vac heating system, Modine air make-up system, and Dock water heater, as specified in WAQSR Chapter 3, Section 3.

The facility is also subject to the applicable requirements of 40 CFR 60 Subpart WW.

Periodic Monitoring:

- **VOC Emissions:** Periodic monitoring for the VOC content limit of the overvarnish and inside spray coating consists of monthly testing.
- **Visible Emissions:** Quarterly Method 9 visible observations are required for each can line printer oven stack and can line inside bake oven stack. Visible emissions monitoring for the washer hot water heater, Co-Ray-Vac heating system, Modine air make-up system, and Dock water heater consists of monitoring the type of fuel used. The can printers are enclosed and therefore have no external visible emissions during normal operations.
- **NO_x Emissions:** The washer hot water heater, Co-Ray-Vac heating system, Modine air make-up system, and Dock water heater are fuel burning equipment as defined in WAQSR Chapter 1. These units emit NO_x in relatively small quantities (less than 1 TPY of NO_x). In the absence of more stringent permit limits, the NO_x emission limit for fuel burning equipment is 0.20 pounds per million BTUs (lb/MMBtu) for sources constructed after April 9, 1973 according to WAQSR Chapter 3, Section 3. Small fuel burning sources, like these units, under normal operating conditions are uncontrolled and operate at a steady state with little variation in emissions over time. AP-42 emission factors were developed by the Environmental Protection Agency (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 emission limit from WAQSR Chapter 3, Section 3 is twice that of the AP-42 value, the Division feels it is extremely unlikely these sources will operate out of compliance and considers periodic monitoring of these sources to be uneconomical.
- **Can Line Operation:** Due to downstream restrictions on the beverage can lines, the maximum number of can lines that can be operated simultaneously is 2. Since the physical arrangement of the can lines makes it impossible to exceed the limit for the number of can lines which are operated simultaneously, no further monitoring is required.

Note (2/29/2012): Upon verification with EPA and Crown Cork & Seal, it was determined that greenhouse gas reporting under 40 CFR Part 98 is not required for this facility. Condition F10 has been removed from the final permit.