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December 14, 2012

Project No. 170-12-2

NSR Program Manager
Wyoming Department of Environmental Quality
Air Quality Division
Herschler Building 2-E
122 West 25th Street
Cheyenne, WY 82002

Subject: Solvay Natural Gas Boiler Addition, PSD Permit Application

NSR Program Manager:

The Solvay Soda Ash Joint Venture, Green River Soda Ash Plant (Solvay) submits the attached permit application and associated technical support document for criteria pollutants, including an air quality impact analysis, for its proposed installation of a 254 MMBtu/hr natural-gas-fired package boiler. The boiler is to be installed at the existing Solvay facility, which is located 20 miles west of Green River, Wyoming.

Currently, production at the facility is limited (i.e., bottlenecked) when steam is not available from two existing coal-fired boilers to support production processes. With the addition of the gas-fired boiler, additional steam will be available to the facility to supplement or replace steam from the existing boilers. Solvay proposes to also install a clear liquor heat exchanger and make other minor operational and equipment changes to debottleneck production in other ways. As a result, several sources will be debottlenecked, allowing an increase in annual production at the facility. None of the short-term (hourly and 24-hour) existing process source capacities will change with this boiler addition. The combination of changes will serve to increase both short-term and long-term production while remaining within the previously permitted capacity rates and, aside from the new boiler, remaining within both short-term and long-term potential-to-emit limits.

As part of the boiler project, Solvay wishes to remove the following existing sources from the facility: Wyoming DEQ ID #64 (Sulfite Blending #2), #65 (Sulfite Blending #1), #72 (MBS Soda Ash Feed Silo), #89 (Bisulfate Loadout Facility), #90 (Blending Bag Dump #1), and #91 (Blending Bag Dump #2).

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In addition, Source #15 (Dryer #1 and #2) is a steam tube dryer only and does not have its own burner. Solvay has a small natural gas preheater installed on #15, but this preheater has not been used in years. Solvay no longer wishes to use the Source #15 preheaters and wishes to eliminate them from the facility's air permit also; this will result in the elimination of the currently permitted nitrogen oxides (NO_X) limit of 1.8 lb/hr for #15.

Also note that with the startup of the 254 MMBtu/hr natural-gas-fired package boiler, the temporary portable 28 MMBtu/hr boiler, whose minor modification permit application was recently submitted to WDEQ, will be removed from operation at the facility.

The package boiler addition triggers Prevention of Significant Deterioration (PSD) review for particulate matter (PM, PM_{10}, and $PM_{2.5}$), NO_X, carbon monoxide (CO), volatile organic compounds (VOC), and greenhouse gases (GHG). While the GHG component of the application was submitted to the United States Environmental Protection Agency, Region 8 office (EPA Region 8) earlier than the criteria pollutant component (April 9, 2012), we understand your intent and Solvay encourages EPA Region 8 and Wyoming DEQ to combine review and public comment of the full application.

Three copies of this permit application and supplemental report are attached, with a copy also being sent to EPA Region 8. Please contact Tim Brown of Solvay (307-872-6570) or Tim Martin of Air Sciences Inc. (971-271-5314) with any questions you might have on this application.

Thanks in advance for your consideration.

Sincerely,

Rodger G. Steen

Rodger G. Steen
Principal, Air Sciences Inc.

Attachment

Cc: Tim Brown – Solvay
David Hansen – Solvay
Donald J. Law – EPA Region 8