

5.c – Point Sources

5.c.i – Overview

This section of the TSD has been developed to demonstrate that the listed point sources in the August 8, 1994 EPA approved PM10 SIP will not interfere with any applicable requirement of CAA 110(a)(1); as the Salt Lake and Utah County PM10 nonattainment areas are now in attainment with the PM10 standard. This modified PM10 SIP (Maintenance Plan) has been developed to assure that the applicable requirements of the CAA are met. In working with the EPA Region 8, the major areas of potential interference that needed to be addressed included the following:

1. Making all requirements federally enforceable,
2. Developing emission standards in their proper form (24 hour vs annual)
3. Elimination of SSM emissions exclusions,
4. Ensuring no other NAAQS are negatively impacted and
5. Preventing backsliding of limits and measurement techniques

The point source section of this TSD is organized to address three types of point sources. Major point sources that are specifically listed in section IX.H of the revised SIP are discussed in point source evaluation reports. Aggregate sources are then addressed as a group rather than being addressed individually as they were in the Original SIP. Minor sources that were major sources and addressed individually in the Original SIP are discussed as a group in the revised SIP. Both Utah PM10 nonattainment areas are addressed in the point source section of this document.

While the Original SIP listed over 60 point sources, this document and the revised SIP lists 21 major sources. These sources are the current major (>100 tpy) emitters of PM10 or PM10 precursors. These 21 major sources are controlled by subsections IX.H.1-4 of the revised SIP. Subsection IX.H.1 includes general requirements applicable to all listed point sources. Requirements for testing, operation and recordkeeping are included in this subsection. Subsection IX.H.2 & 3 lists specific limits for each individual point source. These limits are based on the RACT analysis that was conducted for the PM2.5 moderate SIP approved by the Utah Air Quality Board on December 3, 2014. Subsection IX.H.4 includes interim limits for the refineries. Final controls for the refineries are included in IX.H.1 and IX.H.2 but some controls won't be completed until 2019. These interim limits make the current limits at the refineries enforceable and provide a mechanism for the DAQ to issue Title V Permits to the refineries. The individual reports for these listed sources address all areas of potential interference to attainment and CAA mandates.

The Aggregate Sources Section of the TSD addresses all sand and gravel operations in Salt Lake County and Utah County. None of these formerly listed aggregate sources are major sources and so none will have controls or limits in IX.H.1-4 of the revised SIP. During development of the PM2.5 SIP, the DAQ developed a rule, R307-312 – Aggregate Processing Operations for PM2.5 nonattainment areas. The DAQ contends that source compliance with this rule and with the most recent federally approved fugitive dust emissions rule, will maintain emissions from aggregate sources below levels used in the emissions inventory for the original SIP. The data and conclusions are presented in section 5.c.iv of this TSD.

Many of the point sources listed in the original SIP are not listed in the revised SIP. A number of the sources are no longer operating. Many of these sources are now minor sources. No formerly listed sources will have controls or limits in IX.H.1-4 of the revised SIP. Section 5.c.v of this report evaluates the PM10 and PM10 precursor emissions of these previously listed sources. This analysis shows no backsliding of emissions from this group of sources listed in the original SIP. Since modification to these sources is subject to NSR permitting requirements, which includes a requirement to do a BACT analysis on modified equipment, there is no interference to CAA mandates (110(a)(i)).

When evaluating point source emissions changes as a whole, from the original SIP (past actual emissions) to the revised SIP (future potential emissions), an emissions increase is observed. The reader should note that the method of comparison the DAQ utilized in this evaluation does not provide a direct comparison of emissions. Actual emissions are, per permit requirement, lower than allowed emissions and actual emissions are often significantly less than allowed emissions. There are also questions regarding the modeled emission value used in the PM10 SIP. It is known that some emission limits assigned to sources in the PM10 SIP were in error. Because of this error, some sources could not be issued Title V Permits because the limits would not allow for normal operation of the source. The approach of the DAQ analysis, comparing past actual emissions to future potential emissions, is the most conservative approach for a backsliding analysis. It is also unclear if the emissions from Geneva Steel at baseline operations, and the emissions from the Kennecott smelter prior to modernization, are adequately counted in the backsliding analysis.

The direct evidence of “no backsliding” for the purposes of this section of the report is the recognition that all of Utah is showing attainment of the PM10 NAAQS. A second line of evidence is the modeling conducted for this action. The point source modeling used future actual emissions in the inventory and the model results show PM10 well below the 24-hour NAAQS.

Subsections IX.H.1-4 include requirements that address the remaining EPA concerns. The DAQ believes all interference issues have been properly addressed in this report and in the point source limits and controls that have been developed.
