



January 8, 2014

What is the PM_{2.5} SIP?

It is the State Implementation Plan (SIP) to address non-compliance, in certain parts of the state, with the federal 24-hour health standard for fine particulate matter 2.5 microns (PM_{2.5}) in size and smaller.

All states are subject to two health-based National Ambient Air Quality Standards for fine particulates: a 24-hour standard of 35 µg/m³ and an annual standard of 12 µg/m³. Utah meets the annual standard in all areas of the state. Davis and Salt Lake counties, and parts of Box Elder, Cache, Tooele, Utah and Weber counties exceed the 24-hour standard at times during the winter. As a result, the Environmental Protection Agency (EPA) has designated these areas as “nonattainment.”

In areas where the health standards are not met, the Clean Air Act requires the State of Utah to develop a SIP to bring these areas back into compliance.

What is RACT?

RACT stands for Reasonably Available Control Technology. The Environmental Protection Agency (EPA) defines RACT as “the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility.”

Utah Department of Environmental Quality Division of Air Quality

FAQs

PM_{2.5} SIP

How much does industry contribute to Utah’s poor air quality?

Air quality is measured as a concentration; for example, micro-grams per cubic meter (µg/m³). Since much of Utah’s winter-season PM_{2.5} is secondary PM (chemically created in the atmosphere, rather than at its source of origin), it is useful to look at the emissions released at each source as a surrogate for the actual impact on air quality. In terms of these emissions, measured in tons per day, we can compare the contribution of the industrial (i.e., point) source category to the overall inventory of air emissions.

Drawing from the 2010 emissions inventory used as the baseline for the Salt Lake and Provo PM_{2.5} SIPs, and aggregating emissions of primary PM_{2.5} and each of the precursors to secondary PM_{2.5} (SO₂, NO_x and VOC), we can arrive at a percentage of emissions belonging to large industry for each geographic nonattainment area:

- Point source emissions for the Salt Lake City nonattainment area is 12.7 percent.
- Point source emissions for the Provo nonattainment area is 2.6 percent.

What process did DAQ use to evaluate industry’s implementation of RACT?

The RACT process outlined by the EPA is a 3-step process. The first step is to identify any technologically and economically feasible options. Any such option is evaluated for the emission reductions to be achieved, the costs incurred and the timeliness of implementation.

In the second step, these options are collectively evaluated in the air quality model, in an effort to achieve attainment of the National Ambient Air Quality Standards as expeditiously as practicable.

The third step is to ultimately select the candidate control measures that reasonably and economically achieve the emissions reduction to be included in the overall control strategy for the SIP.

What were the criteria used to determine the controls required of industry as part of the PM_{2.5} SIP?

DAQ conducted a technological feasibility analysis. Technically feasible controls were then ranked using the following criteria:

- Reduction of Pollutants of Interest
- Economic Feasibility
- Energy Impacts
- Environmental Impacts
- Implementation schedule

Why is industry allowed to grow (i.e., increase emissions)?

Utah Code, which is modeled after federal regulations, details permitting regulations and requirements for major point sources located in nonattainment areas. Because of these regulations, DAQ is obligated to evaluate and process permit applications for major sources in nonattainment areas that meet the defined rules and requirements.

- Federal regulations 40 CFR 52.21 and 40 CFR 51.165
- Utah permitting regulations for major sources in non-attainment areas in R307-403.

Will new industrial companies—similar to what now operates in Utah—be allowed to start business in Utah?

New industrial sources can submit applications to permit new or modified emission units. DAQ will review and evaluate these applications in accordance with the most current regulations. For a major source located in a non-attainment area, additional requirements include Lowest Achievable Emissions Reduction (LAER) Technology and Emissions Reduction Credits (ERC).

Will industry not be required to do anything more than what is outlined in the PM_{2.5} SIP?

Industry will be required to comply with all applicable rules, permit conditions and the new PM_{2.5} SIP limits.

How often are refineries and other industries (e.g., Kennecott) monitored to ensure they are compliant?

Monitoring frequency for industrial facilities in Utah is based on the quantity and type of emissions emitted, compliance history, and air quality conditions in the air shed. In general, the bigger the impact a source has on air quality the more frequently monitoring is performed.

Monitoring for major point sources occurs regularly throughout the year and includes activities such as: on-site compliance, complaint inspections, off-site surveillance (drive-by inspections), scheduled stack tests and continuous emission monitors (CEMs).

Did the public have a chance to comment on this proposal?

Yes. The specific sections of the PM_{2.5} SIPs related to the RACT analysis for point sources for the Salt Lake City and Provo nonattainment areas were released for a 30-day public review in November 2013. Public hearings were held in each area during this comment period. DAQ reviewed and made changes and adjustments to the proposed SIP based on public feedback. In addition, public feedback was as part of a stakeholder process as these SIPs were developed.

Did EPA evaluate the PM_{2.5} SIP and RACT analysis? What was their feedback?

Yes. See separate page for more information.

Is the PM_{2.5} SIP final?

No. The D.C. Circuit Court found, in January 2013, that EPA had improperly interpreted the Clean Air Act when it developed an implementation strategy for PM_{2.5} when that pollutant was introduced in 1997. Therefore, Utah will have to revise each SIP in accordance with EPA's re-interpretation of the Act. Although EPA has yet to make its re-interpretation known, it is likely that Utah will need to prepare and submit SIPs in 2017 in the context of areas that are classified as "serious" nonattainment areas.

What happens if the PM_{2.5} SIP fails to get Utah back into attainment?

The Clean Air Act anticipates instances such as this and includes a process for correction. Once the SIPs are final, Utah is required to track progress, and make additional SIP revisions as necessary to correct any shortcomings.

How can I provide feedback or submit questions to DAQ about Utah's air quality?

The formal public comment period for the PM_{2.5} SIP has concluded. However, DAQ welcomes public feedback, comments and questions at any time. You can contact the DAQ via email at deqinfo@utah.gov, by calling 801-536-4000, or by writing to P.O. Box 144820, Salt Lake City, Utah 84114-4820.