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GUIDELINES

TO: New Source Review Section

FROM: Marty Gray, Permitting Branch Manager *MG*

DATE: March 1, 2019

SUBJECT: PM_{2.5} Emission Reduction Credit (ERC) Banking and Offsetting Requirements

PURPOSE

This guidance outlines the procedures for banking and using ERCs to ensure that federal and state offsetting requirements are followed, and the PM_{2.5} ERC database is current and accurate.

IMPLEMENTATION

1. PM_{2.5} Registry Areas

The PM_{2.5} Registry will be divided into three areas:

- Provo – This non-attainment area includes a portion of Utah County
- Salt Lake – This non-attainment area includes all of Salt Lake County and Davis County, and portions of Weber County, Box Elder County and Tooele County
- Other – ERCs can be obtained for areas or counties outside the PM_{2.5} non-attainment areas, but the ERCs can only be used for offsets in a non-attainment area that is impacted by the attainment area emissions, as predicted by modeling. Without a modeling demonstration, conducted by the UDAQ, these ERCs cannot be used for NSR permit offsetting.

2. BANKING ERCs IN THE PM_{2.5} REGISTRY

The following conditions are applicable when banking PM_{2.5} and PM_{2.5} precursor ERCs. All ERCs will be calculated on a tons/year (tpy) basis.

a. Sources Eligible for Banking ERCs

ERCs can be banked by both major and minor sources. Even though PM_{2.5} offsets are only

required for major sources of PM_{2.5} and PM_{2.5} precursors, credits can be obtained through creditable emissions reductions from major or minor sources.

Only sources with a valid Approval Order (AO) and whose emissions were included in the emissions inventory, developed in accordance with the PM_{2.5} Implementation Rule (40 CFR 51 Subpart Z) may claim offset credits from shutdowns and curtailments. For minor sources not required to submit emissions inventory data, the source shall provide actual operating data to confirm that the source operated during the inventory period (40 CFR 51 Subpart Z) developed for the State Implementation Plan SIP.

b. Criteria for Banking Emissions

Emission reductions from the following activities may be banked:

- **Shutdowns and Curtailments:** Emissions reductions achieved by shutting down an existing source or curtailing production or operating hours.
- **Voluntary controls:** Emissions reductions achieved through emission controls beyond what is required by a SIP, AO, or a State or Federal regulation.
- **Shutdown of grandfathered equipment.**

For these activities the emissions can only be banked if the emissions were included in the attainment demonstration inventory. All emission reduction credits must meet the following criteria in order to be included in the ERC database:

- **Permanent:** Emission reductions must be permanent; a temporary reduction does not qualify for ERCs. A source that is relocated to another site within the nonattainment area is not considered permanently closed.
- **Federally Enforceable:** Emission reductions must be made enforceable by a SIP requirement or by the inclusion of an AO condition for the new or modified source. A decrease in actual emissions is credible only to the extent that the change is enforceable as a practical matter at and after the time that actual construction on the particular change begins.
- **Quantifiable:** A quantifiable reduction is a reduction of actual emissions, not a reduction in potential emissions. Actual emissions are defined in R307-401-2.
 - In general, actual emissions consist of emissions from the 24-month period immediately prior to the date that DAQ received a complete emission credit request. Actual emission data reported to the Emissions Inventory shall be used, if available.
 - DAQ may approve another 24-month period of actual emission data up to five years from submittal of the application that is more representative of normal operations. A detailed justification for the alternative 24-month period shall be provided for DAQ approval.
 - For sources lacking actual emissions data, the actual emissions can be calculated by applying emissions factors, actual operation time, fuel usage and/or any other data needed to determine actual emissions. A minimum two years of operation is required for emissions to be creditable.
 - Condensable PM_{2.5} emissions must be quantified before and after the reduction.

- The required level of control (BACT or RACT) may need to be applied to actual emission calculations, as described below in Section 2.c.
- **Surplus:** A surplus reduction is a reduction that is not required by a State or Federal requirement such as BACT, LAER, RACT, NSPS, NESHAP, MACT, etc.

Although not required by rule, a source must document request to bank ERCs. This request can be in a permit application or an Administrative Order. A source may retroactively request to bank ERCs after the project is complete. ERCs will be registered if the project emissions reductions meet all emissions banking criteria.

c. BACT/RACT Applied to Emissions Credits

BACT or RACT may need to be applied to baseline actual emissions when requesting ERCs for grandfathered sources or for SIP-listed sources. Under these scenarios, actual emissions calculations must incorporate the control efficiency or an emission factor that would have been required by a BACT analysis.

When shutting down grandfathered equipment, the quantity of ERCs must include a BACT control efficiency or emission factor applied to actual emissions. The source should propose the appropriate BACT control for the grandfathered equipment and shall submit the BACT justification to DAQ for approval.

For SIP-listed sources that shutdown or curtail operations or emission units, the quantity of ERCs must include the BACT control efficiency or emission factor that would have been required by the SIP had the source or emission unit stayed in operation.

d. Interpollutant Trading

PM_{2.5} ERCs can only be used and banked on a pollutant for pollutant basis. No interpollutant trading is allowed. For this policy to change, DAQ modelers will need to perform a study, approved by the EPA, showing a trading ratio that results in an improvement in ambient conditions.

e. Historical PM₁₀ Registry

ERCs banked prior to December 4, 2013 (included in baseline emissions in the PM₁₀ SIP approved by the Utah Air Quality Board) cannot be used for PM_{2.5} offsetting. These credits were removed from the registry because they were not included in the PM_{2.5} attainment demonstration inventory for the PM_{2.5} SIP adopted on December 4, 2013. Refer to Section 6.6 of the PM_{2.5} Moderate SIP for additional information.

f. Submittal Requirements for Offset Credit Request

The source must submit the following items in a request for banking ERCs:

1. A description of the project resulting in ERCs, including project timeline and identifying emission units affected by the project;

2. The origin of the emissions and how they meet the requirements for ERCs (permanent, enforceable, quantifiable, surplus);
3. Emissions inventory data or calculations of actual emission data from the 24-month period immediately prior to the date of the request, or other approved 24 month period, and supporting documentation.

This request for banking ERCs may be submitted in conjunction with an NOI or as a separate document.

g. DAQ Responsibilities

The ERC Coordinator will work with the project engineer when reviewing the request for banking ERCs. The ERC Coordinator will confirm that the credits to be banked were calculated in accordance with the procedures outlined above and in accordance with R307-403. If the source meets all the applicable requirements, the ERC Coordinator or project engineer will generate a letter confirming the quantity of ERCs to be banked.

The ERC Coordinator or project engineer will finalize the ERC Order letter after the public comment period for the AO associated with the ERC project. This final letter shall incorporate any changes to the offsetting determination resulting from public comments and include the approval document. The letter will be dated the same date as the AO.

The project engineer will include the ERC Order letter with the AO for Branch Manager review. Once the AO and ERC Order letter are signed, the project engineer will ensure the ERC Coordinator receives a copy of the signed ERC Order letter. The ERC coordinator will then do the following:

1. Update the PM_{2.5} registry accounting files, including the historical transactions file and the summary files for the website.
2. Update files on the ERC web page.
3. Include the following documents in the ERC source file: copy of the signed ERC Order letter; copy of the signed AO; engineering review; ERC request from the source; and any relevant email or letter communication.

3. USING/TRANSFERRING ERCs FROM THE PM_{2.5} REGISTRY

a. PM_{2.5} Offsetting Triggers

PM_{2.5} offsets are required for new major sources or major modifications of major sources in nonattainment areas.

- A major source in the serious PM_{2.5} nonattainment area is defined as any source with the potential to emit 70 tpy or more of PM_{2.5} or of any individual PM_{2.5} precursor (NO_x, VOCs, SO₂, and ammonia).
- Major modifications are defined as any physical change in or change in the method of operation of a major stationary source that would result in a significant emissions increase and a significant net emissions increase of a regulated NSR

pollutant. Significant emissions increases for PM_{2.5} nonattainment areas are any emissions equal to or exceeding the following:

- PM_{2.5}: 10 tpy of direct PM_{2.5} emissions (filterable + condensable);
- SO₂: 40 tpy
- NO_x: 40 tpy
- VOCs: 40 tpy
- Ammonia: 70 tpy

Note: if any of the above modification thresholds are triggered, the source will be required to obtain offsets for PM_{2.5} and all PM_{2.5} precursors, even if these other pollutants do not exceed the major modification thresholds.

b. Construction in Stages

When a source embarks on a project that employs multiple modifications to achieve a business objective, the emission changes from each modification are additive. This process is referred to as “construction in stages.” To properly permit this type of project the engineer must be aware of the history and objective of the project to identify related modifications and track emissions changes. If at any time the project related modifications within the contemporaneous period (less than five years following resumption of regular operations after the most recent change) result in an emissions increase above the threshold for offsetting, offsetting is required. There may be intermixed modifications that are not related to any other project, and for these modifications the changes in emissions are not counted toward significance.

For “construction in stages” the emissions from related modifications during the contemporaneous period shall be evaluated to determine whether the total emissions from the combined contemporaneous modifications constitute a major modification making R307-403 and the offsetting requirements applicable.

c. Source Submittal Requirements

The source must submit a letter request to the ERC Coordinator outlining the offset requirements for the source and the origin of the offsets. R307-403-4(3) requires that “any emission offsets required for a new or modified source shall be in effect and enforceable before a new or modified source commenced construction”. Therefore, the ERC letter request must be submitted and approved by DAQ prior to the commencement of construction as defined in R307-101-2.

The following items must be included in this letter request:

1. A description of the project, including project timeline;
2. Nonattainment area where the source is located;
3. Specific offset quantities needed per pollutant;
4. Calculations and supporting documentation for determining the quantity of credits needed for the project;

5. If emission credits are being obtained from another company, the company selling the credits shall also submit a letter to confirm the transfer of credits.

d. DAQ Responsibilities

The ERC Coordinator will work with the project engineer when reviewing the request for using ERCs. The ERC Coordinator will verify that the credits are available for the source in that nonattainment area. If the source meets all the applicable requirements, the ERC Coordinator or project engineer will generate a letter approving the use or transfer of credits.

If credits are being transferred from another company, the ERC Coordinator will also generate a letter confirming the transfer of credits.

The ERC coordinator will then do the following:

1. Update the PM_{2.5} registry accounting files, including the historical transactions file and the summary files for the website.
2. Update files on the ERC web page.
3. Include the following documents in the ERC source file: copy of the signed ERC transfer letter; transfer request from the source; and any relevant email or letter communication.

AUTHORITY

The generation and offsetting of PM_{2.5} and PM_{2.5} precursors is implemented in accordance with 40 CFR 51 Appendix S, which governs the requirements for creditable reductions. UAC R307-403 (Permits: New and Modified Sources in Nonattainment Areas and Maintenance Areas) implements the federal requirements for major sources as required in 40 CFR 51.165.

This Guideline shall be audited every five years by the Major Source Section Manager to determine the current status and relevance of the information.