

EMISSION REDUCTION CREDIT (ERC) DETERMINATION

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BACKGROUND:

TCEQ'S EMISSIONS BANKING & TRADING PROGRAM

THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) EMISSIONS BANKING AND TRADING PROGRAM (EBTP) WAS ESTABLISHED IN 1993 TO PROVIDE FLEXIBILITY FOR COMPLYING WITH CERTAIN STATE AND FEDERAL AIR QUALITY REQUIREMENTS, WHILE CREATING A NET REDUCTION IN TOTAL AIR EMISSIONS IN AN AREA. THIS PROGRAM PROVIDES A MARKET-BASED FRAMEWORK FOR TRADING REDUCTIONS PRIMARILY IN VOLATILE ORGANIC COMPOUNDS (VOC) AND NITROGEN OXIDES (NOX) FROM STATIONARY SOURCES AND MOBILE SOURCES. ON DECEMBER 6, 2000, THE RULES GOVERNING THE EBTP WERE DIVIDED INTO FOUR DIVISIONS AND CODIFIED IN 30 TAC CHAPTER 101, SUBCHAPTER H.

Emission Reduction Credits (ERCs) are one form of creditable reductions available for certification through the EBTP. An ERC is a permanent reduction in VOC or NOx emissions, expressed in tons per year, reviewed and certified by the TCEQ. Once certified, ERCs are available for trade or use within the same nonattainment area in which they were generated. Certified ERCs are listed in the TCEQ Emission Reduction Credit Registry. Traditionally, ERCs have been used as an alternative means of compliance with the reduction requirements of 30 TAC Chapters 115 and 117, netting decreases, and as offsets for Nonattainment New Source Review (NSR) permits.

REGULATORY REQUIREMENTS FOR ERCs

The regulatory requirements for the generation of ERCs (stated in Chapters 101.302 and 101.303) are summarized below:

EMISSION CREDIT REQUIREMENTS

Emission reduction credits are certified reductions that meet the following requirements:

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1. Reductions must be enforceable, permanent, quantifiable, real, and surplus.
2. The certified reduction must be surplus at the time it is created, as well as when it is used.
3. In order to become certified, the reduction must have occurred after the most recent year of emission inventory used in the state implementation plan (SIP).
4. The facilities annual emissions prior to the reduction strategy must have been reported in the emissions inventory used in the SIP.

PROTOCOL

All generators or users of emission credits shall use the protocols for testing and monitoring methodologies identified to quantify emissions and show compliance with the emission specifications or requirements in Chapters 115 and 117. If an approved protocol does not exist, the user or generator must submit a protocol to TCEQ for review and approval.

CREDIT CERTIFICATION

1. The amount of emission credits in tons per year will be determined and certified to the nearest tenth of a ton per year.
2. Applications for certification will be reviewed in order to determine the creditability of the reductions. Reductions determined to be creditable will be certified by the executive director.
3. The applicant will be notified in writing if the executive director denies the emission credit application. The applicant may submit a revised application in accordance with the requirements of this division.
4. If a facility's actual emissions exceed its allowable emission limit, reductions of emissions exceeding the limit may not be certified as emission credits.
5. Applications for certification of emission credit may be subject to a public review and comment period as determined by the executive director.

RECORDKEEPING

The generator shall maintain a copy of all notices and backup information submitted to the TCEQ for a minimum of five years. The records must include:

1. The name, emission point number, and facility identification number of each facility using emission credits
2. The amount of emission credits being used by each facility
3. The specific number, name, or other identification of emission credits used for each facility

METHODS OF GENERATION

Emission reduction credits (ERC) may be generated using one of the following methods or any other method that is approved by the executive director:

1. The permanent shut down of a facility that causes a loss of capability to produce emissions
2. The installation and operation of pollution control equipment that reduces emissions below the level required of the facility
3. A change in the manufacturing process that reduces emissions below the level required of the facility
4. The permanent curtailment of production, that reduces the facility's capability to produce emissions

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5. Pollution prevention projects that produce surplus emission reductions

ERCs may not be generated from the following strategies:

1. Reductions from the shifting of activity from one facility to another facility at the same site
2. Reductions in emissions from the shutdown of a facility that was not reported in the most recent emissions inventory used in the state implementation plan (SIP)

ERC CALCULATION AND CERTIFICATION

The quantity of ERCs is determined by subtracting the facilities emissions after application of the emission reduction strategy from the baseline emission rate. The baseline emission rate is the highest two-year average emissions in the last ten years not to exceed the quantity of emissions reported in the most recent emissions inventory used in the SIP.

Facilities with potential ERCs must submit to the executive director and EC-1 Form, Application for Emission Credits, within 180 days of the implementation of the emissions reduction strategy. Reductions determined to be creditable will be certified by the executive director and an ERC certificate will be issued to the owner.

An application for ERCs must include a completed EC-1 Form signed by an authorized representative of the applicant along with the following information for each pollutant reduced:

1. A complete description of the emissions reduction strategy
2. The amount of emission credits generated
3. For VOC reductions, a list of specific compounds reduced
4. Documentation supporting baseline emissions and controlled emissions
5. Emissions inventory data used in the most recent SIP and emissions inventory data used in the two baseline years
6. The regulatory compliance emission rate for the applicable facility
7. A complete description of the protocol used to calculate the emission reduction generated
8. The actual calculations performed by the generator to determine the amount of emissions credits generated

OUR SERVICES AND APPROACH:

ERC CERTIFICATION ANALYSIS PROCESS

The generation and certification process for ERCs can be confusing. Sage uses a step-by-step analysis to secure certification.

STEP 1 Sage analyzes the requirements of Rules 101.302 and 101.303, noting the specific applicability of each section to the facility under review. To complete this task, Sage reviews the TCEQ authorization and compliance history of each facility under consideration and determines which facilities may be candidates for additional control for the generation of surplus emission reductions.

OUR SERVICES AND APPROACH:

ERC CERTIFICATION ANALYSIS PROCESS

STEP 2 Sage evaluates the client's proposed emission reduction strategy to determine if resulting emissions reductions meet the five criteria for certification, which include the following:

1. Sage works with the client to confirm that the reductions are real. Only reductions in actual emissions may be certified.
2. Sage determines if the proposed reductions are surplus. The proposed emission reduction strategy must not be required by any local, state, or federal requirement.
3. Sage confirms that the proposed emission reductions are quantifiable. Sage ensures that only approved and recognized emission calculations and methodologies are used in the quantification of the emission reductions.
4. Sage ensures that the emission reductions are permanent. Only those emission reductions that are everlasting and unchanging for the life of the facility may be certified as ERCs.
5. Sage ensures that the proposed emission reductions are enforceable. Enforcement mechanisms vary depending upon the authorization of the facility. Sage determines the most appropriate enforceability option.

STEP 3 Sage prepares documentation of the ERC generation and quantification to be maintained at the plant site pursuant to Section 101.302. At a minimum, this documentation includes the following:

1. The name, emission point number and facility identification number of each facility
2. The number of emission credits being used by each facility
3. The specific number, name, or other identification of emissions credits used for each facility

STEP 4 Sage completes and files Form EC-1 and helps develop all required data elements and any additional information as required by the TCEQ. Sage works with the agency to resolve any issues raised during the review process.

ADMINISTRATIVE DATA

Sage coordinates with the client and the TCEQ to incorporate all relevant documentation in support of the ERC certification submittal. This includes all data elements of the Form EC-1 as required, including process descriptions, maps, process flow diagrams, and emissions calculations

TIMING/PROCESS

The ERC certification submittal review can take several months or longer, depending upon the complexity of the facilities affected, emission reduction strategy, emissions calculations, and agency backlog. Sage generally requires at least 60 days to prepare an ERC certification package depending upon the availability of the required documentation information.