Santa Barbara County
Air Pollution Control District

Our Vision Clean Air

Emission Reduction Credits

Presentation to the Santa Barbara County APCD Community Advisory Council

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Today's Presentation

- **What are ERCs?**
- **Terminology & Rules**
- **Fugitive Hydrocarbons & ERCs**
- **Resources**

What are ERCs?

- **An ERC is created when a company reduces its actual "in-the-air" emissions beyond what is required by permits and rules. It is an asset that can be used by its owner or sold to companies that need to provide emission offsets.**

How are ERCs created?

- **ERCs created by reducing ROC, NOx, PM (including PM_{10}), CO or SOx emissions. Done by adding controls, replacing or removing equipment, or closing all / part of a facility.**
- **No minimum or maximum limit on the amount of reductions that may become ERCs. ERC certificates become a valuable commodity.**

Programs Requiring ERCs

- **New Source Review (Rules 802 and 803)**
- **Flares and Thermal Oxidizers (Rule 359)**
- **OCS Air Regulation (40 CFR Part 55)**
- **CEQA**

Terminology

- **ERC:** an actual emission reduction that is *quantifiable*, *surplus*, *enforceable*, *permanent* and *real*. Credits can be created by adding controls, replacing or removing equipment or closing a business.
- **Emission Offsets (or Offset Liability):** the quantity of emissions that a company must mitigate by applying ERCs. For example, if a company's expansion involves an emissions increase that triggers offsets, the company can use ERCs to mitigate the increase.

Terminology

- **Surplus:** means emission reductions not required by current regulations, not already relied upon for in the CAP and not used by the source to meet any other regulatory requirement.

- **Quantifiable:** means that the emission reduction amounts can be accurately determined.

  The same method for calculating emissions should be used to measure the emissions both before and after the changes in emission levels, both at the generator and at the user of the Emission Reduction Credits. Quantification must be based on the actual emissions from the source prior to the reduction.

Terminology

- **Enforceable:** means all limitations and conditions are legally and practically enforceable by the District and the USEPA.
- **Permanent:** means the reductions will endure and are otherwise creditable for the entire term of the proposed use of the emission reduction credit.
- **Real:** means that actual *in-the-air* reductions will occur. The ERC calculations must reasonably represent actual air emissions and credit shall not be given for “paper” reductions.

APCD Rules

- **Rule 804 – Emission Offsets**
  Details specific requirements for the use of emission offsets. (e.g., shift in load, use of ERCs from outside the District)
- **Rule 806 – Source Register**
  Details the processes for application, approval, public notice, issuance, transfer and use of ERCs.

Fugitive Hydrocarbons

- **FHC emissions in O&G industry are not *practically quantifiable***
  - Minute emissions from valves & stems, fittings, flanges, threaded piping, other
  - Emission points are numerous, widely distributed in facility, limited accessibility
  - Constant use of hand-held organic gas analyzers as well as flow measurements in the field would be needed to assess the actual in-the-air emissions
  - Reliability, standardizing of measurements, personnel issues
  - Huge cost to operators to quantify

Fugitive Hydrocarbon Emissions

- **Practical limitations cause air agencies to use EPA- & ARB-approved methods to estimate FHC emissions**
  - FHC emissions assumed to occur based on numerous studies (“models”)
  - Emissions correlated to # of valves, fittings, flanges, connections
  - Emissions-estimating equations used to set facility’s FHC emission limits in the operating permit
  - Actual in-the-air emissions are not known as compared to all other sources (e.g., boiler, solvent use)

Creating & Using FHC ERCs

- **Estimation of fugitive emissions also applies to *reductions* to create ERCs**
  - Enhanced inspection & maintenance
  - Installation of better equipt. (e.g., valves)
  - Facility shutdowns
- **Credits created by enhanced I&M, better equipment and S/D may offset only FHC emission increases**
- **“Like for Like” approach ensures a standardized basis is used to achieve real mitigation of increases**

Resources

- **APCD Webpage**
  http://www.sbcapcd.org/eng/nsr/ercs.htm
- **ERC Brochure**
- **ERC Process Flowchart**

In Summary…

- **ERCs are…**
  - ***real*, *quantifiable*, *enforceable*, *surplus* & *permanent* emission reductions**
  - **used to mitigate emission increases in NSR and other programs**
- **Rules govern ERC creation & use**
- **Creating & Using FHC ERCs**
  - **Quantifying FHC emissions increases & decreases based on estimating methods**
  - **“Like for Like” ensures real mitigation**
- **Resources**

Questions

- **Questions?**

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