Annual Offset Equivalency Demonstration

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Errol Villegas
Permit Services Manager
San Joaquin Valley APCD
What are ERCs?

Emission Reduction Credits (ERCs)

- Created by voluntary reductions in actual emissions
- Reductions must be real, quantifiable, permanent, enforceable, surplus
- Considered valid after District analysis
- ERC Certificate issued
How are ERCs used?

Existing source

Decrease in existing emissions

No increase in emissions in the Valley

New or modified source

New emissions

No increase in emissions in the Valley
Federal rules require “Surplus Credits”

- Credits “surplus” of required reductions
- District looks at “surplus” issues at time of banking
- EPA says ERCs must be surplus-at-time-of-use (surplus of federal requirements)
  - Applies only to federal major sources – new major sources and major modifications at those sources (for example, annual NOx emissions over 10 tons)
Surplus Credits

• Arguments against surplus-at-time-of-use:
  – Stifles early or innovative reductions.
  – Takes valuable property from those who move ahead of pollution reduction requirements.
  – Use of un-surplussed credits doesn’t affect attainment efforts when properly accounted for in attainment plans.
• District offsetting requirements are more strict overall:
  – Higher offset ratios
  – Lower offsetting thresholds
  – Portion (10%) of all original banking actions goes to clean air

• Not entirely successful with these arguments, and EPA required development of our offset equivalency demonstration system
Offset Equivalency Demonstration

- Rule 2201 (New Source Review), Section 7
- Purpose is to demonstrate equivalency:

  District’s offset requirements  
  versus  
  Federal offset requirements
Minor Projects Not Affected

- District’s current offsetting requirements adequate under all conditions for all minor projects:
  - New sources that are not major
  - Modifications that are not federal major modifications (even at major sources)

- Can offset emissions with any valid credits

- No surplussing-at-time-of-use
Offset Equivalency Demonstration

• First test: Compares federal offset requirements to offsets required by District program
• Second test: Compares federal offset requirements to surplus portion of District offsets (surplus reductions are in excess of requirements in existence on the date when the permit is issued)
Offset Equivalency Demonstration

• Quantify increases in emissions from units that require federal offsets (reminder, only affects larger sources):
  – New Major Sources
  – Federal Major Modifications
• Calculate the ERCs necessary to offset these sources per federal requirements
Offset Equivalency Demonstration

• Test 1:
  – Quantify offsets required by District program (higher than fed because of lower offset thresholds and higher offset ratios)
  – Not expected to fail this test
  – If necessary, can add “extra” surplus reductions resulting from the District’s permitting program:
    • Retire sufficient banked reductions
    • 10% cut prior to banking new credits
    • Un-banked reductions
Offset Equivalency Demonstration

• Test 2:
  – Determine surplus offsets required by District program
  – Can add “extra” surplus reductions resulting from the District’s permitting program:
    • Minor Source BACT
    • 10% cut prior to banking new credits
    • Un-banked reductions
Offset Equivalency Demonstration

• If fail 1st test (quantity of offsets):
  – District must retire additional surplus credits until shortfall is made up
  – If insufficient credits are available, District must require sources to use federal offsetting requirements, until rule is changed
  – Again, failure of 1st test is not expected
Offset Equivalency Demonstration

• If fail 2\textsuperscript{nd} test (surplus credits):
  – District must require all new major sources and federal major modifications to use surplus-at-time-of-use credits, until shortfall of surplus reductions is made up

• Remedies kick in on report due-date

• Remedies only affect pollutants for which the demonstration failed
Offset Equivalency Demonstration

Reporting Schedule

• Annual equivalency demonstration period is August 20 to August 19

• Report due to EPA on November 19 of each year

• All reports available on District website, valleyair.org
Carry-Over Surplus NOx Reductions (tons-NOx/yr)

Year | Tons-NOx
--- | ---
2009 | 1624
2010 | 1319
2011 | 957
2012 | 786
2013 | 698
2014 | 658
2015 | 12
Offset Equivalency Demonstration

- Successful for the last thirteen years for all pollutants
- Tracking system likely to fail for NOx this coming year
- If fail, November 19, 2016 report due date triggers ramifications for Authority to Construct permits issued on and after that date
Ramifications of Failure

• New major sources and federal major modifications required to use surplus-at-time-of-use credits
  – Does not affect minor projects
• Ramification in place until subsequent annual report is submitted showing no failure
• Likely significant impact on prices/availability of offsets for such projects
  – Estimated only 5% of NOx ERC credits available for surplus-at-time-of-use
Options to Avoid Failure

• Surrender of, retire, existing surplus ERCs
  – Voluntary?
  – Mandatory – Likely requires rule change
  – Inter-pollutant – Difficult to demonstrate for NOx, precursor for both ozone and PM

• Modified Rule 2201
  – Increase cut of banking actions from current 10%
  – Lower NOx offset threshold – currently at 10 tons per year, same as major source threshold, so no “extra” NOx credits required by District rule 2201
Options to Avoid Failure

• Adopt RECLAIM-type rule
  – Implements a cap-and-trade program
  – Air basin assigned an emissions budget
  – Emissions budget distributed to permitted facilities
  – Emissions budget decreases over time
  – Facilities that over-control can sell excess to those that can’t achieve required reductions

  – Issues:
    • Difficult to establish in air basin with well-controlled sources
    • Existing programs facing challenges on multiple fronts
Options to Avoid Failure

- Establish process to fund and generate credits
  - Funds would be invested in District’s emission reduction incentive program
  - Reductions generated would be surplus
  - Reductions would go directly to offset equivalency
  - Currently no source of funds available
  - Considerations: limited life of reductions from mobile sources, may not be usable
- Revamp federal NSR mitigation concept?
  - probably requires federal and state legislative action
- Other ideas?
Comments/Questions

• If you have comments, questions, answers: errol.villegas@valleyair.org

• District’s next steps:
  – March 17, 2016: draft staff report incorporating comments received by 5:00 pm, Friday - February 26, 2016
  – March 31, 2016: next meeting