

REGULATION 2.12 Emissions Trading (Including Banking and Bubble Rules)

Air Pollution Control District of Jefferson County Jefferson County, Kentucky

Relates To: KRS Chapter 77 Air Pollution Control

Pursuant To: KRS Chapter 77 Air Pollution Control

Necessity and Function: KRS 77.180 provides that the Air Pollution Control Board may make and enforce all needful orders, rules, and regulations necessary or proper to accomplish the purposes of KRS Chapter 77. This regulation establishes procedures for the creation, holding, transfer, and use of surplus emission reductions. These procedures are intended to encourage the development of innovative pollution control technology and to lower the cost of meeting emission control requirements.

SECTION 1 Applicability

This regulation applies to any pollutant for which the Board has adopted stationary source control regulations.

SECTION 2 Definitions

Terms used in this regulation not defined herein shall have the meaning given to them in Regulation 1.02.

- 2.1 "Banking" means the District's system for recording ERCs so that they may be used or transferred for use at a future date. This system shall be called the Jefferson County Emissions Bank (Bank).
- 2.2 "Bubble" means an alternative emission control strategy where several affected facilities are regarded as being placed under a hypothetical dome that simulates a single emission point. Affected facilities under a bubble may reallocate emission decreases and increases so long as the requirements of this regulation are met.
- 2.3 "Emission reduction credit" (ERC) means a surplus emission reduction registered by the District in accordance with the requirements of this regulation that represents a decrease in the quantity of a pollutant discharged from an affected facility beyond the level used in the State Implementation Plan (SIP) attainment demonstration or otherwise required by federal or District regulations.
- 2.4 "Federally enforceable" means all limitations and conditions that are enforceable by EPA, including those requirements developed pursuant to 40 CFR Parts 60, 61, and 63, requirements within the Kentucky SIP, any permit requirements established pursuant to 40 CFR §52.21 or under regulations approved pursuant to 40 CFR §51.160 to §51.166, and any federally enforceable permit requirements, including, but not limited to, those established in an operating permit pursuant to Regulation 2.16 or Regulation 2.17.
- 2.5 "Netting" means to lower the net emissions increase at an expanding or modernizing stationary source below the significant levels using an ERC obtained at the same stationary source and thus become exempt from the requirements of Regulation 2.04 or Regulation 2.05.
- 2.6 "Offset" means use of an ERC obtained from an existing stationary source to counterbalance the increase in emissions in a nonattainment area from a new or modified stationary source subject to Regulation 2.04.

- 2.7 "Permanent Shutdown" means rendering an affected facility inoperable by physically removing, dismantling, or otherwise disabling the affected facility so that it could not be reactivated without spending more than 50% of the fixed capital cost for a comparable entirely new affected facility.
- 2.8 "Reasonable further progress" means annual incremental reductions in emissions of the applicable air pollutant that are sufficient to provide for attainment of the applicable ambient air quality standard by the attainment date specified in the latest SIP attainment demonstration.
- 2.9 "SIP baseline emissions" means that level of emissions (actual or allowable) for each emission point included in the SIP attainment demonstration for the attainment year.
- 2.10 "Stationary source" means all of the affected facilities that belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control) except the activities of any vessel. Affected facilities shall be considered as part of the same industrial grouping if they belong to the same "Major Group" (i.e., that have the same two-digit code) as described in the Standard Industrial Classification Manual, 1972, as amended.

SECTION 3 Application Procedures

- 3.1 Any person who owns or operates a stationary source at which a reduction in emissions has occurred or will occur may apply for creation of an ERC in accordance with this regulation.
- 3.2 A person shall apply for creation of an ERC on District forms.
- 3.3 Except as provided in section 3.4.2 or section 4.6, the owner or operator of a stationary source at which a reduction in emissions has occurred, or will occur, and is federally enforceable shall apply for the creation of an ERC within 30 days of the effective date of the federally enforceable requirement, or 120 days after the effective date of section 3.3, whichever is later.
- 3.4 Applications requesting creation of an ERC based on emission reductions that have already occurred will be approved by the District provided they meet the following requirements:
 - 3.4.1 For volatile organic compounds and oxides of nitrogen, and except for the volatile organic compound emission reductions that are included in the 1990 emissions inventory, the emission reductions occurred on or after November 15, 1990. For other pollutants, the emission reductions occurred on or after August 7, 1977,
 - 3.4.2 For a permanent shutdown of an affected facility, but not the entire stationary source, the owner or operator applied for the creation of an ERC within 30 days of the emission reductions, or 120 days after the effective date of section 3.4.2, whichever is later,
 - 3.4.3 The emission reductions are consistent with the reasonable further progress requirements of the SIP attainment demonstration, and
 - 3.4.4 The emission reductions comply with this regulation.
- 3.5 Applications requesting an ERC for emission reductions that have not occurred at the time of application will be reviewed by the District and conditionally approved or denied. An ERC will be registered however, only after the reduction has taken place. The District may conditionally deposit an ERC into the Bank when it receives from the owner or operator of the stationary source assurances of a commitment to produce a specific reduction in the future. In all cases the reduction must actually be achieved before it can be used in an emission trade except as specified in Regulation 2.04.

- 3.6 Before an ERC may be created, the owner or operator of the stationary source must obtain a revised federally enforceable operating permit that includes specific quantifiable emission limits or operating procedures reflecting quantifiable emission reductions or, for a permanent shutdown, the operating permit of the affected facilities must be voided by the APCO. A revised operating permit will include, as needed, requirements for record keeping or reporting; requirements for performance testing; limitations on fuel burned or raw materials used; restrictions on operating hours, production rates, or input rates; limitations on operating procedures or control equipment to be used; and any other requirements needed to insure that the reduction will be properly obtained and maintained. The various limits must state the minimum time period over which they will be averaged; e.g., lbs/hour or lbs/MM Btu averaged over 24 hours.
- 3.7 Except as provided in section 4.6, ERCs resulting from volatile organic compound emission reductions that are included in the 1990 emissions inventory and emission reductions that occurred on or after November 15, 1990, for volatile organic compounds and oxides of nitrogen, and on or after August 7, 1977, for other pollutants, and that have already been approved by the District since March 14, 1979, shall remain certified and may be used in accordance with this regulation.
- 3.8 Existing volatile organic compound and oxides of nitrogen ERCs that are not included in the 1990 emissions inventory and that resulted from emission reductions that occurred before November 15, 1990, shall become void upon the effective date of section 3.8.

SECTION 4 Creation of Emission Reduction Credits

- 4.1 No ERC may be created unless the following criteria are met:
 - 4.1.1 The emission level after the reduction must be enforceable and a banking permit must be issued by the APCO,
 - 4.1.2 The emission reduction must represent a real and permanent decrease in emissions below the applicable baseline level used in the SIP attainment demonstration. If emissions from the affected facility are not separately identified in the SIP demonstration of attainment of national ambient air quality standards, the baseline will be the average emissions calculated from the operating history of the affected facility for the two-year period before the application is filed unless a different two-year period is more representative of normal operation of the affected facility. Credit will not be given for actual emissions that exceed allowable emissions. Where allowable emissions were used in the SIP attainment demonstration, credit will be based on allowable emissions at the rated capacity of the affected facility using the normal operating hours unless different parameters were used in the attainment demonstration. If historical data are deemed inadequate by the District, action on an application may be deferred for up to one year while operating data are compiled by the applicant,
 - 4.1.3 An applicant proposing an emission reduction from process curtailments or permanent shutdowns of affected facilities must demonstrate that the proposed decrease will not be negated by countervailing emission increases occurring at other stationary sources in the same area in response to the applicant's process curtailments or permanent shutdowns, and
 - 4.1.4 The emission reduction is federally enforceable.
- 4.2 Confirmation of Emission Reduction Credits

- 4.2.1 To confirm emission reductions, the District may require source tests, continuous monitors, or any other acceptable means of measurement.
- 4.2.2 In cases where the District determines that the emission reduction estimates made by the applicant are uncertain, the District reserves the right to grant ERCs for a smaller quantity of emission reductions than requested.
- 4.3 After all of the requirements of this regulation have been met and the emission reduction has actually occurred, the District will register an ERC in the records kept for that purpose and the APCO shall issue a banking permit to the stationary source creating the emission reduction credit.
- 4.4 After receiving written certification from a stationary source that it has released its holding of valid existing ERCs or after a stationary source fails to apply for potential credits within the time period specified in section 3.3 or section 3.4.2, the District shall establish ERCs for general use by the community in the Bank. These credits shall be designated as unallocated credits for purposes of accounting and designation in reports.
- 4.5 During the time that an ERC is held in the emissions banking system, its quantity (expressed in tons per year) will be subject to the following:
 - 4.5.1 If the District determines that additional emission reductions are required from stationary sources because ambient standards are not attained, because of increment violation, or because new RACT requirements are being imposed, stationary sources could satisfy the requirement for additional reductions by using their banked ERCs, by reducing emissions elsewhere, or by purchasing equivalent ERCs.
 - 4.5.2 If new information becomes available to the District that results in more accurate emission estimates, the District will adjust the value of the affected ERCs accordingly.
 - 4.5.3 If an owner or operator of a stationary source that created an ERC fails to comply with the requirements resulting from creating the ERC, the District shall adjust the quantity of such ERCs registered in the banking system.
 - 4.5.4 If the ERC has been used, any violation of the conditions under which the ERC was created will result in enforcement action against the stationary source producing that emission reduction.
- 4.6 ERCs created by the permanent shutdown of an entire stationary source shall be deposited into the Bank for general use by the community, or, as determined appropriate by the Board pursuant to section 5.3.4, improvement in air quality, unless, and to the extent required for approval of the construction permit, before the permanent shutdown occurs, the stationary source has submitted an administratively complete construction permit application to the District for replacement of the entire stationary source within Jefferson County, Kentucky, or for construction or modification of one or more other emissions units located at another stationary source within Jefferson County, Kentucky, to be built within a reasonable time period, as determined by the District for that stationary source or emissions unit category. Section 4.6 shall apply to all permanent shutdowns of an entire stationary source occurring after November 15, 1990. Credits that are deposited into the Bank shall be designated as unallocated credits for the purposes of accounting and designation in reports.

SECTION 5 Use of Emission Reduction Credits

- 5.1 An ERC may be used by the holder of the ERC at the time it is registered or it may be held for future transfer or use so long as the use of the ERC is consistent with the SIP attainment demonstration and in compliance with federal, state, and District regulations.

- 5.2 An ERC may be transferred by the holder of the ERC in whole or in part by any means of conveyance permitted by the laws of this state. The role of the District in the transfer of an ERC will be limited to providing information on the documentation and registration of ERCs and to providing technical assistance with regard to possible future use of the ERCs being transferred. No transfer shall be effective until the following have occurred:
 - 5.2.1 The District is notified thereof in writing,
 - 5.2.2 The APCO issues a revised banking permit to the new holder of the transferred ERC and, as appropriate, either issues a revised banking permit to the previous holder of the ERC showing a reduction of the transferred ERC, or cancels the previous banking permit if all of the ERCs identified in that banking permit are to be transferred, and
 - 5.2.3 The District notes the transfer of the ERC in the District registry for that purpose.
- 5.3 Use of unallocated credits
 - 5.3.1 Upon application to the District for use of unallocated ERCs, or a recommendation by the District or Board to retire unallocated ERCs for the purpose of improvement in air quality, a notice of a public hearing before the Board shall be issued to the public and interested parties. The District shall maintain a list of interested parties to which notice is to be provided.
 - 5.3.2 After appropriate public notice and public hearing, the Board shall approve or deny the application for use of unallocated ERCs, and, if approved, shall direct the APCO to issue a banking permit to the applicant.
 - 5.3.3 The Board, after appropriate public notice and public hearing, may also award unallocated ERCs through any other procedure (such as public auction) that would be in the interests of the Louisville and Jefferson County community.
 - 5.3.4 The Board, after appropriate public notice and public hearing, may retire unallocated ERCs for the purpose of improvement in air quality.
- 5.4 Registered ERCs may be used by the holder of the ERC in accordance with this regulation to establish bubbles, to offset increased emissions from new or modified sources, to offset Prevention of Significant Deterioration (PSD) increment consumption (if emission reduction occurs after applicable PSD baseline date), to net out of new source review required by Regulation 2.04 or Regulation 2.05 (provided the emission reductions occur at the same stationary source netting the increases), or to improve air quality.

SECTION 6 Withdrawal of Emission Reduction Credits

- 6.1 Application for use of ERCs shall be made on District forms and shall be accompanied by a letter from the holder of the ERC requesting the appropriate action.
- 6.2 Before an ERC may be used or transferred, the holder of the ERC must obtain a revised banking permit from the APCO that shows the new balance of ERCs held by the person and the amount that was used or transferred.
- 6.3 Use of an ERC will be allowed only in transactions where emissions being exchanged are in the same criteria pollutant category. Hazardous and non-hazardous emissions may only be traded against each other if the hazardous emission is decreased.
- 6.4 An ERC may not be used to meet the requirements of the New Source Performance Standards established under 40 CFR Part 60, the National Emission Standards for Hazardous Air Pollutants established under 40 CFR Part 61, the Maximum Achievable Control Technology standards established under 40 CFR Part 63, the requirement for Lowest

Achievable Emission Rate if Regulation 2.04 applies, or the requirement for Best Available Control Technology if Regulation 2.05 applies.

SECTION 7 Air Quality Modeling Requirements for Use of Particulate Matter, Sulfur Dioxide, and Carbon Monoxide Emission Reduction Credits

- 7.1 Air quality modeling as specified in Regulation 2.11 will be required for use of ERCs representing stack emissions of particulate matter, sulfur dioxide, or carbon monoxide, if one or more of the following conditions occur:
 - 7.1.1 Use of an ERC produces a net increase in applicable baseline emissions,
 - 7.1.2 The relevant emission points are not in the same immediate vicinity (within 100 meters), or
 - 7.1.3 The effective plume height of the affected facility increasing emissions is less than that of the affected facility decreasing emissions.
- 7.2 Only limited modeling will be necessary for use of ERCs for trades if there is no net increase in applicable baseline emissions and if emissions after the trade will not cause a significantly different air quality impact from the original emission points. The limited modeling need only include the emission points involved in creating and using the ERC. A "significantly different impact" is one that equals or exceeds the levels specified in the following table:

Significance Levels

Pollutant	24-Hour	8-Hour
SO ₂	13 ug/m ³	
TSP	10 ug/m ³	
CO		575 ug/m ³

- 7.3 For use of ERCs representing emissions that exceed the conditions of section 7.2, dispersion modeling considering all stationary sources in the area of impact will be required as follows:
 - 7.3.1 Modeling must show that use of the ERC will neither create a new ambient violation nor interfere with reasonable further progress toward attaining national ambient air quality standards as planned in the SIP, and
 - 7.3.2 Modeling must show that use of the ERC will not create an increment violation in a PSD area as defined in Regulation 2.05.
- 7.4 No air quality modeling shall be required for use of ERCs representing stack emissions of volatile organic compounds or oxides of nitrogen.

SECTION 8 Alternate Emission Standards (Bubbles)

- 8.1 The owner of a stationary source, or the owners of two or more different stationary sources, may propose a bubble that establishes alternative standards for the affected facilities included in the bubble.
- 8.2 A stationary source or stationary sources may meet the requirements of Regulation 6 or Regulation 7 (except as prohibited in section 6.4 of this regulation) by using a bubble, provided that all of the following conditions are met:
 - 8.2.1 The bubble shall address only pollutant control scenarios for the same pollutant on affected facilities having permits,

- 8.2.2 The bubble does not allow increases in hazardous pollutant emissions in trade for reductions in less hazardous pollutants,
- 8.2.3 The bubble demonstrates that it would provide an overall net improvement in air quality as a result of its approval,
- 8.2.4 The bubble demonstrates no net increase in applicable baseline emissions subject to the plan,
- 8.2.5 The bubble must demonstrate a consideration of applying controls on all emission points to the extent engineering technology is available, and must include an implementation schedule, and
- 8.2.6 Bubbles that involve multiple permittees must include an executed agreement among all participants to comply with the provisions of the plan.
- 8.3 The total emission limit determined under section 8.2 may be reallocated among affected facilities included in the bubble. Emission reductions shall meet the requirements contained in sections 4.1 and 4.2. Air quality modeling shall be performed in accordance with the requirements contained in Section 7. If ERCs are withdrawn from or deposited into the Bank in conjunction with the bubble, the ERCs shall be created or used in accordance with this regulation.
- 8.4 Upon application and demonstration that the conditions of sections 8.2 and 8.3 have been addressed, the District shall issue a public notice in accordance with Regulation 2.07 announcing a public hearing before the Board at the first available regularly scheduled meeting. After considering all information, the Board may decide to approve or disapprove the alternative emission reduction plan. Where the alternative emission reduction plan exceeds a compliance schedule of any applicable emission regulation, extensions may be granted, provided that the reasonable further progress requirements of the approved SIP are maintained. Upon approval, the APCO shall issue or revise such permits as necessary to provide for effective enforceability of the entire alternative reduction plan. Each approved alternative reduction plan shall be reviewed and implemented as a distinct and separate permit action.
- 8.5 Upon receiving notice from the District that a new or more restrictive emission standard has become applicable to any affected facility included in a bubble under this Section, the owner or owners of those affected facilities shall submit revised permit applications. The revised applications must demonstrate either reductions in total bubble emission or use of ERCs that are equal to or are greater than the reduction required by the new emission standards.
- 8.6 Alternative emission limits approved under this Section become applicable requirements of the SIP for purposes of the Act Section 113 and Section 304 and are enforceable in the same manner as other SIP requirements.
- 8.7 No alternative emission standard will be established for an affected facility that is presently subject to federal enforcement action unless EPA approves the alternative standard and the schedule for meeting it. As used in section 8.7, "federal enforcement action" means any of the following actions under the applicable sections of the Act: civil actions filed under Section 113(b), criminal actions filed under Section 113(c), a notice imposing noncompliance penalties issued under Section 120, administrative orders issued under Section 113(a), or a citizen suit filed under Section 304 where EPA has intervened.

SECTION 9 Transmittals to EPA

The District will transmit copies of the following documents to EPA promptly after the documents are prepared:

- 9.1 Copies of public notices and supporting documents relating to proposed District action on applications for use of an ERC or bubble, and
- 9.2 Copies of permits reflecting District approval of use of an ERC or bubble, including data on emission limits before and after the approval.

SECTION 10 Amendment of the State Implementation Plan: Requirements and Exemptions

The District will approve the proposed use of an ERC or bubble without action to formally amend the SIP if the proposed use falls under any one of the following conditions:

- 10.1 The sum of emissions increases at the affected facilities totals less than 100 tons per year after applicable control requirements and there is no net increase in applicable baseline emissions as a result of the trade,
- 10.2 The trade involves volatile organic compounds or oxides of nitrogen and there is no net increase in applicable baseline emissions,
- 10.3 The trade involves particulate matter, sulfur dioxide, or carbon monoxide and does not require air quality modeling pursuant to section 7.1, or
- 10.4 The trade involves particulate matter, sulfur dioxide, or carbon monoxide and requires only limited air quality modeling pursuant to section 7.2 and this modeling is conducted in accordance with Regulation 2.11.

Adopted v1/4-21-82; effective 4-21-82; amended v2/11-16-83, v3/4-16-86, v4/12-18-96.

	Date Submitted	Date Approved	Federal Register
Original Reg:	06/29/79	01/25/80	45 FR 6092
1st Revision:	06/30/97	09/13/99	64 FR 49404