

REGULATION 5.16 Control Technology Requirements for New and Reconstructed Major Stationary Sources of Hazardous Air Pollutants

**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 authorizes the Air Pollution Control Board to adopt and enforce all orders, rules, and regulations necessary or proper to accomplish the purposes of KRS Chapter 77. This regulation implements the control technology determination requirements of the Clean Air Act section 112(g) for new and reconstructed major stationary sources of hazardous air pollutants.

SECTION 1 Definitions

Terms used in this regulation that are not defined in this regulation shall have the meaning given them in Regulation 1.02 *Definitions*, the Act, or in 40 CFR Part 63 Subpart A.

1.1 “Affected source” means a stationary source or group of stationary sources that, when fabricated on site, erected, or installed, meets the definition of "construct a major source" or the definition of "reconstruct a major source" and is not exempted under Section 2.

1.2 “Affected States” means all States:

1.2.1 Whose air quality may be affected and that are contiguous to Jefferson County, Kentucky,
or

1.2.2 Whose air quality may be affected and that are within 50 miles of the major source for which a MACT determination is made under this regulation.

For the purpose of this definition, the Commonwealth of Kentucky shall be considered an affected State.

1.3 “Available information” means, for the purpose of identifying control technology options for the affected source, information contained in the following information sources as of the date of final approval by the District of a Notice of MACT Approval:

1.3.1 A relevant proposed 40 CFR Part 63 regulation, including all supporting information,

1.3.2 Background information documents for a draft or proposed 40 CFR Part 63 regulation,

1.3.3 Data and information available from the Control Technology Center developed pursuant to the Act section 113,

1.3.4 Data and information contained in the Aerometric Informational Retrieval System, including information in the MACT data base,

1.3.5 Any additional information that can be expeditiously provided by EPA or the Kentucky Division for Air Quality,

1.3.6 Any additional information provided by the applicant or others, and

1.3.7 Any additional information considered available by the District.

1.4 “Construct a major source” means either of the following:

1.4.1 To fabricate, erect, or install at any greenfield site a stationary source, or a group of stationary sources, that is located within a contiguous area and under common control and that emits, or has the potential to emit, 10 tons or more per year of any single HAP or 25 tons or more per year of any combination of HAPs, or

1.4.2 To fabricate, erect, or install at any existing stationary source a new process or production

unit that by itself emits, or has the potential to emit, 10 tons or more per year of any single HAP or 25 tons or more per year of any combination of HAPs, unless the process or production unit satisfies the following criteria:

- 1.4.2.1 All HAPs emitted by the process or production unit that would otherwise be controlled under the requirements of this regulation will be controlled by emission control equipment that was previously installed at the same stationary source,
- 1.4.2.2 One of the following has occurred:
 - 1.4.2.2.1 The District has determined, within a period of 5 years before the expected commencement date for the fabrication, erection, or installation of the process or production unit, that the existing emission control equipment represented best available control technology (BACT) pursuant to a construction permit subject to Regulation 2.05 *Prevention of Significant Deterioration of Air Quality*, lowest achievable emission rate (LAER) pursuant to a construction permit subject to Regulation 2.04 *Construction or Modification of Major Sources In or Impacting Upon Non-Attainment Areas (Emission Offset Requirements)*, or MACT pursuant to this regulation or any requirement pursuant to the Act section 112(j) for the category of pollutants that includes those HAPs to be emitted by the process or production unit, or
 - 1.4.2.2.2 The District has determined that the control of HAP emissions provided by the existing emission control equipment will be equivalent to that level of control currently achieved by other well-controlled similar sources; i.e., equivalent to the level of control that would be provided by a current BACT, LAER, or MACT determination,
 - 1.4.2.3 The District has determined that the percent control efficiency for HAP emissions from all sources to be controlled by the existing emission control equipment will be equivalent to, or greater than, the percent control efficiency provided by the emission control equipment before the inclusion of the new process or production unit,
 - 1.4.2.4 The District has provided notice and an opportunity for public comment on the following:
 - 1.4.2.4.1 The District's determination that the criteria in sections 1.4.2.1, 1.4.2.2, and 1.4.2.3 apply, and
 - 1.4.2.4.2 The continued adequacy of any prior LAER, BACT, or MACT determination,
 - 1.4.2.5 If any commenter has asserted that a prior LAER, BACT, or MACT determination is no longer adequate, then the District has determined that the level of control required by that prior determination remains adequate, and
 - 1.4.2.6 All emission limitations, work practice requirements, or other terms and conditions upon which the determinations in sections 1.4.2.1, 1.4.2.2, and 1.4.2.3 are made by the District are applicable requirements under Regulation 2.16 *Title V Operating Permits* and either have been incorporated into an existing Title V operating permit for the stationary source or will be incorporated into a Title V operating permit upon issuance of the Title V operating permit.
- 1.5 "Control technology" means measures, processes, methods, systems, or techniques to limit the emission of HAPs that accomplish 1 or more of the following:
 - 1.5.1 Reduce the quantity of, or eliminate emissions of, HAPs through process changes, substitution of materials, or other modifications,

- 1.5.2 Enclose systems or processes to eliminate emissions,
- 1.5.3 Collect, capture, or treat HAPs when released from a process, stack, storage, or fugitive emissions point, or
- 1.5.4 Use design, equipment, work practice, or operational standards, including requirements for operator training or certification, as provided in the Act section 112(h).
- 1.6 “Electric utility steam generating unit” means any fossil fuel-fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A unit that co-generates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 megawatts electric output to any utility power distribution system for sale shall be considered an electric utility steam generating unit.
- 1.7 “Greenfield site” means a contiguous area under common control that is an undeveloped site.
- 1.8 “List of source categories” means the source category list required by the Act section 112(c).
- 1.9 “Maximum achievable control technology (MACT) emission limitation for new sources” means the emission limitation that is not less stringent than the emission limitation achieved in practice by the best controlled similar source and that reflects the maximum degree of reduction in emissions that the District, taking into consideration the cost of achieving that emission reduction and any non-air quality health and environmental impacts and energy requirements, determines is achievable by the constructed or reconstructed major source.
- 1.10 “Notice of MACT Approval” means a document issued by the District containing all federally enforceable conditions necessary to enforce the application and operation of MACT or other control technologies so that the MACT emission limitation for new sources is met.
- 1.11 “Process or production unit” means any collection of structures and equipment that processes, assembles, applies, or otherwise uses material inputs to produce or store an intermediate or final product. A single stationary source may contain more than one process or production unit.
- 1.12 “Reconstruct a major source” means the replacement of components at an existing process or production unit that by itself emits or has that potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAPs and both of the following occur:
 - 1.12.1 The fixed capital cost of the new components exceeds 50% of the fixed capital cost that would be required to construct a comparable new process or production unit, and
 - 1.12.2 It is technically and economically feasible for the reconstructed major source to meet the applicable MACT emission limitation for new sources established by this regulation.
- 1.13 “Research and development activities” means activities conducted at a research or laboratory facility whose primary purpose is to conduct research and development of new processes and products, the facility is operated under the close supervision of technically trained personnel, and the facility is not engaged in the manufacture of products for sale or exchange for commercial profit, except in a *de minimis* manner.
- 1.14 “Similar source” means a stationary source or process or production unit that has comparable emissions and is structurally similar in design and capacity to a constructed or reconstructed major source such that the constructed or reconstructed major source could be controlled using the same control technology.

SECTION 2 Applicability

- 2.1 Overall requirements. This regulation applies to any owner or operator who constructs or reconstructs a major source of HAPs on or after June 29, 1999, unless 1 of the following has occurred:

- 2.1.1 The major source has been specifically regulated or exempted from regulation under a federal standard issued pursuant to the Act section 112(d) or section 112(h) and incorporated in 40 CFR Part 63, or a determination made by the District under the Act section 112(j), and the owner or operator has fully complied with all procedures and requirements for preconstruction review established by that standard, including any applicable requirements in 40 CFR Part 63 Subpart A, or
- 2.1.2 The owner or operator of the major source has been issued all necessary air quality construction permits for the construction or reconstruction project before June 29, 1999.
- 2.2 Exclusion for electric utility steam generating units. This regulation does not apply to electric utility steam generating units unless these units are added by the Administrator of the EPA to the source category list pursuant to the Act section 112(c)(5).
- 2.3 Exclusion for stationary sources in deleted source categories. This regulation does not apply to stationary sources that are within a source category that has been deleted by the Administrator of the EPA from the source category list pursuant to the Act section 112(c)(9).
- 2.4 Exclusion for research and development activities. This regulation does not apply to research and development activities.

Section 3 Construction or Reconstruction of Major Sources

On or after June 29, 1999, an owner or operator shall not begin actual construction or reconstruction of a major source of HAPs unless the District has issued a Notice of MACT Approval for the major source of HAPs, based upon a case-by-case determination of the MACT emission limitation for new sources that complies with the requirements of Section 4.

Section 4 Case-by-Case MACT Determinations for Constructed or Reconstructed Major Sources

- 4.1 The owner or operator of a constructed or reconstructed major source of HAPs shall submit to the District an application for a Notice of MACT Approval for the affected source.
- 4.2 When applying for a Notice of MACT Approval, an owner or operator may request approval of case-by-case MACT determinations for alternative operating scenarios.
- 4.3 The owner or operator shall comply with all applicable requirements in 40 CFR Part 63 Subpart A.
- 4.4 Principles of MACT determinations. The following general principles shall govern preparation by the owner or operator of an application for a Notice of MACT Approval and all subsequent review of, and actions taken concerning, this application by the District:
 - 4.4.1 The MACT emission limitation or MACT requirements recommended by the applicant and approved by the District shall not be less stringent than the emission control that is achieved in practice by the best controlled similar source, as determined by the District,
 - 4.4.2 Based upon available information, the MACT emission limitation and control technology, including any requirements under section 4.4.3, recommended by the applicant and approved by the District shall achieve the maximum degree of reduction in emissions of HAPs that can be achieved by using the control technologies that can be identified from the available information, taking into consideration the costs of achieving that emission reduction and any non-air quality health and environmental impacts and energy requirements associated with the emission reduction,
 - 4.4.3 If the District specifically determines that it is not feasible to establish or enforce an emission limitation under the criteria set forth in the Act section 112(h)(2), then the

- applicant may recommend a specific design, equipment, work practice, or operational standard, or a combination of these, and the District may approve this standard, and
- 4.4.4 If the Administrator of the EPA has either proposed a relevant emission standard pursuant to the Act section 112(d) or section 112(h) or adopted a presumptive MACT determination for the source category that includes the constructed or reconstructed major source, then the MACT requirements applied to the constructed or reconstructed major source shall have considered those MACT emission limitations and requirements of the proposed standard or presumptive MACT determination.
- 4.5 Application requirements for a Notice of MACT Approval. The application shall include the following information:
- 4.5.1 Identification as to whether the constructed or reconstructed major source would require additional control technology or a change in control technology to comply with the MACT emission limitation or standard or would be in compliance, upon startup, with the MACT emission limitation or standard without a change in control technology,
- 4.5.2 The name and address of the physical location of the major source to be constructed or reconstructed,
- 4.5.3 A brief description of the major source to be constructed or reconstructed and identification of any source category or categories, listed pursuant to the Act section 112(c), in which it is included,
- 4.5.4 The expected commencement date for the construction or reconstruction of the major source,
- 4.5.5 The expected completion date for construction or reconstruction of the major source,
- 4.5.6 The anticipated date of start-up for the constructed or reconstructed major source,
- 4.5.7 The HAPs emitted by the constructed or reconstructed major source,
- 4.5.8 Any federally enforceable emission limitations applicable to the constructed or reconstructed major source,
- 4.5.9 The maximum and expected utilization of capacity and operating schedule of the constructed or reconstructed major source and the associated uncontrolled and controlled emission rates for each HAP,
- 4.5.10 The recommended MACT emission limitation or standard for the constructed or reconstructed major source,
- 4.5.11 The selected control technology to meet the recommended MACT emission limitation or standard, including technical information on the design, operation, size, estimated control efficiency of the control technology, and, if requested by the District, the manufacturer's name, address, telephone number, and relevant specifications and drawings,
- 4.5.12 Supporting documentation, including identification of alternative control technologies considered by the applicant to meet the emission limitation, and analysis of cost and non-air quality health environmental impacts or energy requirements for the selected control technology, and
- 4.5.13 Any other relevant information required pursuant to 40 CFR Part 63 Subpart A.
- 4.6 Administrative procedures for review of the Notice of MACT Approval application.
- 4.6.1 The District shall notify the owner or operator in writing, within 30 days from the date the application is first received, as to whether the application is complete or additional information is required.
- 4.6.2 Within 45 days after the owner or operator is notified in writing that the application is complete, the District shall either propose approval of the application or notify the owner

- or operator in writing of its intent to disapprove the application.
- 4.6.3 The owner or operator may present, in writing, within 60 days after receipt of notice of the District's intent to disapprove the application, additional information or arguments pertaining to, or amendments to, the application for consideration by the District before it decides whether to finally disapprove the application.
- 4.6.4 The District shall either propose approval or issue a final disapproval of the application within 90 days after it notifies the owner or operator of an intent to disapprove or within 30 days after the date that additional information is received from the owner or operator, whichever is earlier.
- 4.6.5 A final determination by the District to disapprove an application shall be in writing and shall specify the grounds on which the disapproval is based. If an application is finally disapproved, the owner or operator may submit a subsequent application concerning construction or reconstruction of the same major source, provided that the subsequent application has been amended in response to the stated grounds for the prior disapproval.
- 4.6.6 If the District proposes approval of an application, then a proposed Notice of MACT Approval shall be prepared by the District that meets the requirements in section 4.7 and shall undergo the public review process in section 4.8.
- 4.7 Notice of MACT Approval.
- 4.7.1 The Notice of MACT Approval shall contain a MACT emission limitation, or a MACT work practice standard if the District determines that it is not feasible to establish or enforce an emission standard, to control the emissions of HAPs.
- 4.7.2 The Notice of MACT Approval shall specify any notification, operation and maintenance, performance testing, monitoring, reporting, and recordkeeping requirements. The Notice of MACT Approval shall include all of the following:
- 4.7.2.1 In addition to the MACT emission limitation or MACT work practice standard established under this regulation, additional emission limits, production limits, operational limits, or other terms and conditions necessary to ensure federal enforceability of the MACT emission limitation,
- 4.7.2.2 Compliance certifications, testing, monitoring, reporting and recordkeeping requirements that are consistent with the requirements of Regulation 2.16 section 4.3,
- 4.7.2.3 In accordance with the Act section 114(a)(3), monitoring shall be capable of demonstrating continuous compliance during the applicable reporting period. The monitoring data shall be of sufficient quality to be used as a basis for enforcing all applicable requirements established under this regulation, including emission limitations,
- 4.7.2.4 A statement requiring the owner or operator to comply with all applicable requirements contained in 40 CFR Part 63 Subpart A.
- 4.7.3 All provisions contained in the Notice of MACT Approval shall be federally enforceable upon the effective date of issuance of the Notice.
- 4.7.4 The Notice of MACT Approval shall expire if construction or reconstruction has not commenced within 18 months of issuance, unless the District has granted an extension that shall not exceed an additional 12 months.
- 4.8 Opportunity for public comment on the proposed Notice of MACT Approval.
- 4.8.1 The District shall provide an opportunity for public comment on the proposed Notice of MACT Approval, including, at a minimum:

- 4.8.1.1 Availability for public inspection of the non-proprietary information submitted by the owner or operator and of the District's initial decision to approve the application,
- 4.8.1.2 A 30-day period for submittal of public comment, and
- 4.8.1.3 A public notice of the proposed approval, availability of the information required by sections 4.8.1.1, and announcement of the 30-day comment period in the newspaper having the largest bona fide paid circulation in Jefferson County, Kentucky.
- 4.8.2 The proposed Notice of MACT Approval shall become final automatically at the end of the comment period if no adverse comments are received. If adverse comments are received, the District shall have 30 days after the end of the comment period to make any necessary revisions in its analysis and decide whether to finally approve the application.
- 4.8.3 The District shall send a copy of the proposed Notice of MACT Approval and the public notice required by section 8.4.1.3 to EPA Region 4 and all other affected State and local air pollution control agencies having jurisdiction in affected States.
- 4.9 The effective date of a MACT determination shall be the date on which the Notice of MACT Approval becomes final.
- 4.10 Compliance with MACT determinations.
 - 4.10.1 On and after the date of start-up, an owner or operator of a constructed or reconstructed major source shall comply with all requirements in the final Notice of MACT Approval, including, but not limited to, any MACT emission limitation or MACT work practice standard and any notification, operation and maintenance, performance testing, monitoring, reporting, and recordkeeping requirements.
 - 4.10.2 An owner or operator of a constructed or reconstructed major source that has obtained a MACT determination shall be deemed to be in compliance with the Act section 112(g)(2)(B) only to the extent that the constructed or reconstructed major source is in compliance with all requirements of the final Notice of MACT Approval. Any violation of these requirements by the owner or operator shall be deemed by the District and by EPA to be a violation of the prohibition on construction or reconstruction in the Act section 112(g)(2)(B) for whatever period the owner or operator is determined to be in violation of these requirements, and shall subject the owner or operator to appropriate enforcement action under the Act.
 - 4.11 Within 30 days of the issuance of a final Notice of MACT Approval, the District shall provide a copy of the Notice of MACT Approval to EPA Region 4 and all other affected State and local air pollution control agencies having jurisdiction in affected States and shall provide a summary in a compatible electronic format for inclusion in the MACT data base.

Section 5 Requirements for Constructed or Reconstructed Major Sources Subject to a Subsequently Promulgated MACT Standard or MACT Requirement

- 5.1 If the Administrator of the EPA promulgates an emission standard under the Act section 112(d) or section 112(h) or the District makes a determination under the Act section 112(j) that is applicable to an affected source before the date that the owner or operator has obtained a Notice of MACT Approval, then the owner or operator of the affected source shall comply with the promulgated standard or determination, by the compliance date in that standard or determination, rather than a MACT determination under this regulation.

- 5.2 If the Administrator of the EPA promulgates an emission standard under the Act section 112(d) or section 112(h) or the District makes a determination under the Act section 112(j) that is applicable to an affected source after the issuance of a Notice of MACT Approval, then the District shall, if an initial title V operating permit has not yet been issued to the owner or operator of the affected source, revise the Notice of MACT Approval to include any more stringent requirements, or, if a Title V operating permit has been issued to the owner or operator of the affected source, revise the Title V operating permit, according to the reopening procedures in Regulation 2.16 section 5.9, to include any more stringent requirements. In either case, the District shall include a new compliance date according to 1 of the following:
- 5.2.1 If the EPA included in the emission standard a specific compliance date for those sources that have obtained a final and legally effective MACT determination under 40 CFR §§63.40 to 63.43 and, if applicable, that have submitted the information required by 40 CFR §63.43 to the EPA before the close of the public comment period for a standard established under the Act section 112(d), or if the District included in the determination a specific compliance date, then that compliance date shall be incorporated in the revised Notice of MACT Approval or Title V operating permit.
- 5.2.2 If no compliance date had been established in the emission standard promulgated by the EPA or in the determination by the District, then the District shall establish a compliance date that assures that the owner or operator shall comply with the promulgated standard or determination as expeditiously as practicable, but not longer than 8 years after the standard is promulgated or the determination is made.
- 5.3 If an emission standard or determination identified in section 5.2 contains any less stringent requirements than those contained in an issued Notice of MACT Approval for an affected source, then the District may, upon application from the owner or operator of the affected source and in its discretion, and after providing the same opportunity for public comment as required in section 4.8, revise the Notice of MACT Approval to reflect the less stringent requirements.

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