

**15A NCAC 02D .1112 112(G) CASE BY CASE MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY**

(a) Applicability. This Rule applies to the construction or reconstruction of major sources of hazardous air pollutants unless:

- (1) the major source has been regulated or exempted from regulation pursuant to:
  - (A) 15A NCAC 02D .1109 or .1111; or
  - (B) a standard issued pursuant to Section 112(d), 112(h), or 112(j) of the federal Clean Air Act and incorporated in another Subpart of 40 CFR Part 63; or
- (2) the owner or operator of the major source has received all necessary air quality permits for the construction or reconstruction project before July 1, 1998.

(b) Exclusions. The requirements of this Rule shall not apply to:

- (1) electric utility steam generating units unless and until such time as these units are added to the source category list pursuant to Section 112(c)(5) of the federal Clean Air Act;
- (2) stationary sources that are within a source category that has been deleted from the source category list pursuant to Section 112(c)(9) of the federal Clean Air Act; or
- (3) research and development activities.

(c) Definitions. For the purposes of this Rule, the following definitions apply:

- (1) "Affected source" means the 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" contained in this Paragraph.
- (2) "Affected States" means all States or local air pollution agencies whose areas of jurisdiction are:
  - (A) contiguous to North Carolina and located less than  $D=Q/12.5$  from the facility, where:
    - (i)  $Q$  = emissions of the pollutant emitted at the highest permitted rate in tons per year; and
    - (ii)  $D$  = distance from the facility to the contiguous state or local air pollution control agency in miles; or
  - (B) within 50 miles of the permitted facility.
- (3) "Available information" means, for purposes of identifying control technology options for the affected source, information contained in the following information sources as of the date of approval of the MACT determination by the Division:
  - (A) a relevant proposed regulation, including all supporting information;
  - (B) background information documents for a draft or proposed regulation;
  - (C) data and information available from the Control Technology Center developed pursuant to Section 113 of the federal Clean Air Act;
  - (D) data and information contained in the Aerometric Informational Retrieval System including information in the MACT data base;
  - (E) additional information that can be expeditiously provided by the Division and EPA; and
  - (F) for the purpose of determinations by the Division, additional information provided by the applicant or others and additional information available to the Division.
- (4) "Construct a major source" means:
  - (A) To fabricate, erect, or install at any greenfield site a stationary source or 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 per year of any HAP's or 25 tons per year of any combination of HAP; or
  - (B) To fabricate, erect, or install at any developed site a new process or production unit that in and of itself emits or has the potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAP, unless the process or production unit satisfies Subparts (i) through (vi) of this Paragraph:
    - (i) all HAP emitted by the process or production unit that would otherwise be subject to the requirements of this Rule will be controlled by emission control equipment that was previously installed at the same site as the process or production unit;
    - (ii) the Division:
      - (I) has determined within a period of five years prior to 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 15A NCAC 02D .0530 or lowest

- achievable emission rate (LAER) pursuant to 15A NCAC 02D .0531 for the category of pollutants that includes those HAP's to be emitted by the process or production unit; or
- (II) determines that the control of HAP emissions provided by the existing 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 pursuant to 15A NCAC 02D .1109);
  - (iii) the Division determines that the percent control efficiency for emissions of HAP from all sources to be controlled by the existing control equipment will be equivalent to the percent control efficiency provided by the control equipment prior to the inclusion of the new process or production unit;
  - (iv) the Division has provided notice and an opportunity for public comment concerning its determination that criteria in Subparts (i), (ii), and (iii) of this Subparagraph apply and concerning the continued adequacy of any prior LAER, BACT, or MACT determination pursuant to 15A NCAC 02D .1109;
  - (v) if any commenter has asserted that a prior LAER, BACT, or MACT determination pursuant to 15A NCAC 02D .1109 is no longer adequate, the Division has determined that the level of control required by that prior determination remains adequate; and
  - (vi) any emission limitations, work practice requirements, or other terms and conditions upon which the above determinations by the Division are predicated will be construed by the Division as applicable requirements pursuant to Section 504(a) of the federal Clean Air Act and either have been incorporated into an existing permit issued pursuant to 15A NCAC 02Q .0500 for the affected facility or will be incorporated into such a permit upon issuance.
- (5) "Control technology" means measures, processes, methods, systems, or techniques to limit the emission of hazardous air pollutants, including measures that:
    - (A) reduce the quantity of, or eliminate emissions of, such pollutants through process changes, substitution of materials, or other modifications;
    - (B) enclose systems or processes to eliminate emissions;
    - (C) collect, capture, or treat such pollutants when released from a process, stack, storage, or fugitive emissions point;
    - (D) are design, equipment, work practice, or operational standards, including requirements for operator training or certification, as provided in 42 U.S.C. 7412(h); or
    - (E) are a combination of Parts (A) through (D) of this definition.
  - (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.
  - (7) "Greenfield site" means a contiguous area under common control that is an undeveloped site.
  - (8) "HAP" means hazardous air pollutants.
  - (9) "Hazardous air pollutant" means any pollutant listed pursuant to Section 112(b) of the federal Clean Air Act.
  - (10) "List of source categories" means the source category list required by Section 112(c) of the federal Clean Air Act.
  - (11) "MACT" means maximum achievable control technology.
  - (12) "Maximum achievable control technology 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 permitting authority determines is achievable by the constructed or reconstructed source, taking into consideration the cost of achieving such emission reduction, non-air quality health and environmental impacts, and energy requirements.

- (13) "Process or production unit" means any collection of structures or equipment that processes, assembles, applies, or otherwise uses material inputs to produce or store an intermediate or final product. A single facility may contain more than one process or production unit.
  - (14) "Reconstruct a major source" means the replacement of components at an existing process or production unit that emits or has the potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAP, if:
    - (A) the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable process or production unit; and
    - (B) it is technically and economically feasible for the reconstructed major source to meet the applicable maximum achievable control technology emission limitation for new sources established pursuant to 40 CFR Part 63, Subpart B.
  - (15) "Research and development activities" means activities conducted at a research or laboratory facility whose primary purpose is to conduct research and development into new processes and products, where such source is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for sale or exchange for commercial profit, except in a de minimis manner.
  - (16) "Similar source" means a stationary source or process that has comparable emissions and is structurally similar in design and capacity to a constructed or reconstructed major source, such that the source could be controlled using the same control technology.
- (d) Principles of MACT determinations. The following general principles shall be used to make a case-by-case MACT determination concerning construction or reconstruction of a major source pursuant to this Rule:
- (1) The MACT emission limitation or MACT requirements recommended by the applicant and approved by the Division shall not be less stringent than the emission control that is achieved in practice by the best controlled similar source, as determined by the Division.
  - (2) Based upon available information, the MACT emission limitation and control technology, including any requirements pursuant to Subparagraph (3) of this Paragraph, recommended by the applicant and approved by the Division shall achieve the maximum degree of reduction in emissions of HAP that can be achieved by using those control technologies that can be identified from the available information, taking into consideration the costs of achieving such emission reduction and any non-air quality health and environmental impacts and energy requirements associated with the emission reduction.
  - (3) The owner or operator may recommend a specific design, equipment, work practice, or operational standard, or a combination thereof, and the Director may approve such a standard if it is not feasible to prescribe or enforce an emission limitation pursuant to the criteria set forth in Section 112(h)(2) of the federal Clean Air Act.
  - (4) If the EPA has either proposed a relevant emission standard pursuant to Section 112(d) or 112(h) of the federal Clean Air Act or adopted a presumptive MACT determination for the source category that includes the constructed or reconstructed major source, 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.
- (e) Effective date of MACT determination. The effective date of a MACT determination shall be the date of issuance of a permit pursuant to procedures of 15A NCAC 02Q .0300 or .0500 incorporating a MACT determination.
- (f) Compliance date. On and after the date of start-up, a constructed or reconstructed major source that is subject to the requirements of this Rule shall be in compliance with all applicable requirements specified in the MACT determination.
- (g) Compliance with MACT determinations. The owner or operator of a constructed or reconstructed major source that:
- (1) is subject to a MACT determination shall comply with all requirements set forth in the permit issued pursuant to 15A NCAC 02Q .0300 or .0500, including any MACT emission limitation or MACT work practice standard, and any notification, operation and maintenance, performance testing, monitoring, reporting, and recordkeeping requirements; or
  - (2) has obtained a MACT determination shall be deemed to be in compliance with Section 112(g)(2)(B) of the federal Clean Air Act only to the extent that the constructed or reconstructed major source is in compliance with all requirements set forth in the permit issued pursuant to 15A

NCAC 02Q .0300 or .0500. Any violation of such requirements by the owner or operator shall be deemed by the Division to be a violation of the prohibition on construction or reconstruction in Section 112(g)(2)(B) of the federal Clean Air Act for whatever period the owner or operator is determined to be in violation of such requirements, and shall subject the owner or operator to appropriate enforcement action pursuant to the General Statutes and the federal Clean Air Act.

(h) Requirements for constructed or reconstructed major sources subject to a subsequently-promulgated MACT standard or MACT requirement. If EPA promulgates an emission standard pursuant to Section 112(d) or 112(h) of the federal Clean Air Act or the Division issues a determination pursuant to 15A NCAC 02D .1109 that is applicable to a stationary source or group of sources that is a constructed or reconstructed major source pursuant to this Rule:

- (1) before the date that the owner or operator has obtained a final and legally effective MACT determination pursuant to 15A NCAC 02Q .0300 or .0500, the owner or operator of the sources shall comply with the promulgated standard or determination rather than any MACT determination pursuant to this Rule by the compliance date in the promulgated standard; or
- (2) after the source has been subject to a prior case-by-case MACT pursuant to this Rule, and the owner or operator obtained a final and legally effective case-by-case MACT determination prior to the promulgation date of such emission standard, and if the initial permit has not yet been issued pursuant to 15A NCAC 02Q .0500, the Division shall issue an initial permit that incorporates the emission standard or determination, or if the initial permit has been issued pursuant to 15A NCAC 02Q .0500, the Division shall revise the permit according to the reopening procedures in 15A NCAC 02Q .0517, Reopening for Cause, whichever is relevant, to incorporate the emission standard or determination.

(i) Compliance with subsequent 112(d), 112(h), or 112(j) standards. If EPA includes in the emission standard established pursuant to Section 112(d) or 112(h) of the federal Clean Air Act a specific compliance date for those sources that have obtained a final and legally effective MACT determination pursuant to this Rule and that have submitted the information required by 40 CFR 63.43 to EPA before the close of the public comment period for the standard established pursuant to section 112(d) of the federal Clean Air Act, the Division shall incorporate that compliance date in the permit issued pursuant to 15A NCAC 02Q .0500. If no compliance date has been established in the promulgated 112(d) or 112(h) standard or determination pursuant to 15A NCAC 02D .1109 for those sources that have obtained a final and legally effective MACT determination pursuant to this Rule, the Director shall establish a compliance date in the permit that assures that the owner or operator complies with the promulgated standard or determination as expeditiously as practicable, but not longer than eight years after the standard is promulgated or a determination is made pursuant to 15A NCAC 02D .1109.

(j) Revision of permit to incorporate less stringent control. Notwithstanding the requirements of Paragraph (h) of this Rule, if the Administrator of EPA promulgates an emission standard pursuant to Section 112(d) or Section 112(h) of the federal Clean Air Act or the Division issues a determination pursuant to 15A NCAC 02D .1109 that is applicable to a stationary source or group of sources that was deemed to be a constructed or reconstructed major source pursuant to this Rule and that is the subject of a prior case-by-case MACT determination pursuant to 40 CFR 63.43, and the level of control required by the emission standard issued pursuant to Section 112(d) or 112(h) or the determination issued pursuant to 15A NCAC 02D .1109 is less stringent than the level of control required by any emission limitation or standard in the prior MACT determination, the Division shall not be required to incorporate any less stringent terms of the promulgated standard in the permit issued pursuant to 15A NCAC 02Q .0500 applicable to such sources after considering the effects on air quality. The Division may consider any more stringent provision of the prior MACT determination to be applicable legal requirements, as necessary to protect air quality, when issuing or revising such an operating permit.

*History Note:* Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5),(10);  
Eff. July 1, 1998;  
Readopted Eff. July 1, 2018.