

US EPA ARCHIVE DOCUMENT

May 26, 1992

MEMORANDUM

SUBJECT: Applicability of Prevention of Significant Deterioration (PSD) and New Source Performance Standards (NSPS) to the Cleveland Electric, Incorporated, Plant in Willoughby, Ohio

FROM: Edward J. Lillis, Chief  
Permits Programs Branch, AQMD (MD-15)

TO: George T. Czerniak, Chief  
Air Enforcement Branch, Region V

This memorandum responds to your request for a written applicability determination for a Cleveland Electric, Incorporated, facility in Willoughby, Ohio. As discussed below, my staff has determined that this Cleveland Electric facility is subject to a 100 tons per year (tpy), major source applicability threshold for the PSD requirements at 40 CFR 51.21. If this facility has commenced construction with a minor source construction permit from Ohio, but without undergoing new source review (NSR), as required by 40 CFR 52.21, the source may be in violation of Federal PSD requirements. At this time, the Cleveland Electric Plant does not appear to be subject to the current emissions guideline for municipal waste combustors or NSPS of 40 CFR Part 60, subparts Ca and Ea, respectively. This response has been coordinated with the Compliance Monitoring Branch of the Stationary Source Compliance Division (SSCD), to whom your applicability request was addressed, and with the Standards Development Branch of the Emission Standards Division (ESD) on the applicability of NSPS and emissions guidelines.

In reviewing the information forwarded to our office, we have determined that, for PSD applicability purposes, the Cleveland Electric facility is both a municipal waste incinerator and a fuel conversion plant, as listed at 40 CFR 52.21(b)(1)(c)(iii), and would be major if the source "...emits, or has the potential to emit, 100 tpy of any pollutant subject to regulation under the (Clean Air) Act". The facility appears to meet the criteria for both categories by disposing of municipal

waste using combustion and by producing a low heat value fuel

gas. While there are no definitions in the PSD regulations for "municipal waste incinerator," "fuel conversion plant," and other categories listed as subject to the 100 tpy, major source threshold, the Environmental Protection Agency (EPA) has relied on case-by-case determinations in assessing source applicability. These assessments are based on precedents established by NSPS and other regulatory definitions, as well as technical analysis of the character and functions of both the proposed source and the listed source categories. We have used these guidelines in determining that the Cleveland Electric plant is considered listed under two source categories for which the lower PSD applicability threshold applies.

The NSPS regulations define "municipal waste combustor" at 40 CFR 60.51a to mean "... any device that combusts solid, liquid, or gasified (municipal solid waste) including, but not limited to, field-erected incinerators (with or without heat recovery), modular incinerators (starved air or excess air), furnaces (whether suspension-fired, grate-fired, mass-fired, or fluidized bed-fired) and gasification/combustion units." The emissions guideline of subpart Ca also incorporates this definition by reference (40 CFR 60.31a). On page 10 of Cleveland Electric's December 20, 1991 permit application submittal, the source is described as consisting of seven units, charging 50 tons per day (tpd) per unit, "...converting municipal solid waste into...fuel gas." For NSPS purposes, the Cleveland Electric source is a municipal waste combustor and would be subject to the NSPS standards of 40 CFR Part 60, subpart Ea, if each unit were not below the 250 tpd of refuse combustion capacity per unit applicability threshold of subpart Ea [40 CFR 60.50a(a)].

A municipal waste incinerator "combusts" solid waste and thus is functionally synonymous with municipal waste combustor. Accordingly, EPA has adopted the NSPS definition of municipal waste combustor for determining if a source is subject to the 100 tpy applicability threshold for PSD in section 169(1) of the 3-CAA. Section 169(1), as amended by Section 305(b) of the CAA Amendments of 1990 [P.L. 101-549, sec. 305(b)], lists "municipal incinerators capable of charging more than 50 tons of refuse per day" as being subject to the 100 ton emissions threshold. Under EPA's sourcewide plant definition [40 CFR 52.21(b)(5 and 6)], the 50 tpd charging rate applies to the sum of all units at the Cleveland Electric facility (which will be capable of

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charging a total of 350 tons of refuse per day). Therefore, the

Cleveland Electric facility will be a major source for PSD purposes if the source emits, or has the potential to emit, 100 tpy of any pollutant regulated under the CAA [except HAP's listed under §112(b) of the CAA].

The production of low heat value fuel gas at the Cleveland Electric facility also classifies the source as a fuel conversion plant. Fuel conversion plants obviously include those plants which accomplish a change in state (e.g., solid to liquid to gas) for a fuel. This definition includes conversion of the following fuels: fossil (e.g., coal or oil shale); biomass (e.g., wood or peat); and anthropogenic (e.g., municipal waste derived fuel and inorganic fuel). The majority of such sources are likely to accomplish these changes through either gasification, liquefaction, or solidification. The category of fuel conversion plants may include, but is not limited to, some types of sources within standard industrial classifications 1311, 2819, 2969, 2421, and 2999. Generally, however, applicability for this source category is determined by whether a facility changes the state (e.g., solid to gas) or form (e.g., process sawdust into a pellet) of a fuel. Therefore, the Cleveland Electric facility fits into the fuel conversion plant category as well. In both cases, as a municipal waste incinerator and as a fuel conversion plant, the source is major and subject to PSD requirements if the source has the potential to emit 100 tpy of a regulated pollutant other than a HAP.

If you have any questions concerning our PSD applicability determination, please contact Bill Lamason of my staff at (919) 541-5374. Questions concerning NSPS should be directed to Walt Stevenson, ESD, at (919) 541-5264. On compliance issues, you may contact Clara Poffenberger, SSCD, at (703) 308-8709.

cc: NSR Contacts, EPA Regions I-X.

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