UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

SEP 9 2009

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OFFICE OF
AIR AND RADIATION

Re: CAIR Applicability Determination for the Wheelabrator Ridge Energy Facility located in Auburndale, Florida

Dear Mr. Tuohy:

This letter is EPA's determination of applicability, under 40 CFR 97.104(c), 97.204(c), and 97.304(c) of the Clean Air Interstate Rule (CAIR) Federal Implementation Plan (FIP) for the CAIR NO_x annual, SO_2, and NO_x ozone season trading programs, for the Wheelabrator Ridge Energy Facility located in Auburndale, Florida (Ridge facility) and owned and operated by Wheelabrator Ridge Energy Inc. (Wheelabrator).[1] This determination responds to Wheelabrator's July 11, 2007 request for a determination of applicability, which was supplemented on September 28 and November 8, 2007, January 24, June 26, and July 3, 2008, and February 27, April 27, and 29, 2009.[2] Wheelabrator claimed that the Ridge facility qualifies as a "solid waste incineration unit" exempt from the requirements of the CAIR trading programs.

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[1] In North Carolina v. EPA, 531 F.3d 896 (D.C. Cir. Jul. 11, 2008), reh. granted in part, 550 F.3d 1176 (Dec. 23, 2008), the Court vacated and remanded CAIR and the CAIR FIPs, but, on rehearing, the Court decided to remand without vacatur. The Court required EPA on remand to modify these rules consistent with the July 11, 2008 decision. Since the CAIR FIP and CAIR trading programs will remain in effect pending the remand, questions concerning the treatment of the Ridge facility, and of solid waste incineration units in general, in these trading programs raise issues that are not moot.

[2] When Wheelabrator submitted this applicability determination request, EPA's CAIR FIP was in effect in Florida. EPA subsequently approved Florida's CAIR State Implementation Plan (SIP) revisions providing for participation in the relevant CAIR trading programs, incorporating by reference most of the provisions of EPA's CAIR model trading rules, and replacing the CAIR FIP. The CAIR and CAIR FIP trading programs are virtually identical and operate as integrated trading programs, one for NO_x annual emissions, one for NO_x ozone season emissions, and one for SO_2 emissions. Wheelabrator and Florida have continued to indicate a strong interest in EPA responding to the applicability determination request. Under these circumstances, EPA is responding to the request and referencing both the relevant provisions in the CAIR FIP trading rules and the essentially identical provisions in the CAIR model trading rules.

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Background

The Ridge facility commenced operation in 1994 and includes one boiler that serves a generator with a nameplate capacity of 50 MWe producing electricity for sale to a local utility. The Ridge facility has the following emission controls: a selective non-catalytic reduction system for NO_x; a scrubber for SO_2; and a fabric filter for particulate matter. See Wheelabrator Ridge Energy Inc., Ridge Generating Station, Facility ID NO.: 1050216, Polk County, Title V Air Operation Permit Renewal, Final Permit No.: 1050216-008-AV (Ridge Title V permit) at 10 (Mar. 17, 2006).

The boiler currently combusts a combination of wood (primarily forest debris and construction debris and a small amount of creosote treated wood), yard waste (primarily grass, shrubs, bushes, and clippings from grass, shrubs, and bushes), tires, and landfill gas. While the annual percentages can vary from year to year, about 20% of the wood and virtually all of the yard waste are received unprocessed and are chipped and screened on site before burning. The rest of the wood and yard waste are received already processed. Similarly, about 80% of the tires are received unprocessed, i.e., as whole tires, and are chipped or shredded on site, and the rest of the tires are received already processed. While the identity of the suppliers can vary from year to year, about 83% of the wood and 95% of the yard waste are supplied by county or municipal waste collection facilities. Most of the rest of the wood and yard waste is supplied by private waste management companies. All of these suppliers routinely collect from residences, commercial or industrial companies, and institutions.[3]

The Ridge facility's Title V permit allows the facility to burn additional materials, such as other types of wood residue, but bars the facility from burning hazardous waste, medical/infectious waste, biomedical waste, and "municipal type solid waste (as defined in 40 CFR 60 Subpart Ea),[4] except for tires, yard waste and waste wood," which, to the extent they are municipal solid waste, are limited to 30% by weight of the fuel stream for each calendar quarter. Ridge Title V permit at 12 (emphasis removed). While the Title V permit allows propane to be combusted for startup, shutdown, and combustion stabilization up to 10% of total annual heat input, in 1997 the Ridge facility started using landfill gas instead of propane.

For the period 1995-2008, the composition of the Ridge facility's annual fuel use has been as follows: propane use ranged from 0.02% to 1.13% of heat input from 1995-1998 and was 0% starting in 1999; tires ranged from 21.9% to 41.4%; wood and yard waste ranged from 51.0% to 77.0%; and landfill gas was 0% in 1995-1996 and ranged

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[3] See Wheelabrator's June 26 and July 3, 2008 and February 27 and April 27, 2009 submissions.

[4] "Municipal type solid waste" is defined in 40 CFR part 60, subpart Ea as including, among other things, "[y]ard waste" and "[r]efuse-derived fuel". 40 CFR 60.51a (definition of "municipal solid waste" or "municipal type solid waste" or "MSW").

from 5.7% to 9.6% starting in 1997. See Wheelabrator's July 11, 2007 request, Exhibit D, and February 27, 2009 submission.

The CAIR NO_x annual, SO_2, and NO_x ozone season trading programs apply to CAIR NO_x, SO_2, and NO_x Ozone Season units, which are, in general, "stationary, fossil-fuel-fired boilers or stationary, fossil-fuel-fired combustion turbines serving at any time, since the later of November 15, 1990 or the start-up of the unit's combustion chamber, a generator with nameplate capacity of more than 25 MWe producing electricity for sale." 40 CFR 97.104(a)(1), 97.204(a)(1), and 97.304(a)(1); 40 CFR 96.104(a)(1), 96.204(a)(1), and 96.304(a)(1). Further, the CAIR trading programs define the term "fossil fuel" as "natural gas, petroleum, coal, or any form of solid, liquid, or gaseous fuel derived from such material." 40 CFR 97.102, 97.202, and 97.302; 40 CFR 96.102, 96.202, and 96.302. The boiler at the Ridge facility meets the general applicability criteria because the boiler has burned fossil fuel (e.g., propane) and serves a generator with a nameplate capacity of 50 MWe producing electricity for sale.

However, the applicability provisions exempt certain units that meet the general applicability criteria from being CAIR NO_x, SO_2, and NO_x Ozone Season units and subject to the CAIR trading programs. 40 CFR 97.104(b), 97.204(b), and 97.304(b); 40 CFR 96.104(b), 96.204(b), and 96.304(b). In particular, any unit that meets the general applicability criteria and commenced operation on or after 1985:

> (A) Qualifying as a solid waste incineration unit; and
> (B) With an average annual fuel consumption of non-fossil fuel for the first 3 calendar years of operation exceeding 80 percent (on a Btu basis) and an average annual fuel consumption of non-fossil fuel for any 3 consecutive calendar years after 1990 exceeding 80 percent (on a Btu basis)

is not a CAIR NO_x, SO_2, and NO_x Ozone Season unit. 40 CFR 97.104(b)(2)(ii), 97.204(b)(2)(ii), and 97.304(b)(2)(ii); 40 CFR 96.104(b)(2)(ii), 96.204(b)(2)(ii), and 96.304(b)(2)(ii). (This is referred to as the solid waste incineration unit exemption.)[5]

Under the CAIR trading programs, a solid waste incineration unit is "a stationary, fossil-fuel-fired boiler or stationary, fossil-fuel-fired combustion turbine that is a 'solid waste incineration unit' as defined in section 129(g)(1) of the Clean Air Act" (CAA). 40 CFR 97.102, 97.202, and 97.302 and 40 CFR 96.102, 96.202, and 96.302 (definition of "solid waste incineration unit"). Section 129(g) of the CAA in turn defines a solid waste incineration unit as

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[5] The CAIR trading rules also establish an exemption for cogeneration units meeting certain criteria. 40 CFR 97.104(b)(1), 97.204(b)(1), and 97.304(b)(1); 40 CFR 96.104(b)(1), 96.204(b)(1), and 96.304(b)(1). Because the boiler at the Ridge facility produces only electricity and no useful thermal energy, and so is not a cogeneration unit, this second exemption is not applicable.

> a distinct operating unit of any facility which combusts any solid waste material from commercial or industrial establishments or the general public (including single and multiple residences, hotels, and motels). Such term does not include incinerators or other units required to have a permit under section 3005 of the Solid Waste Disposal Act. The term 'solid waste incineration unit' does not include (A) materials recovery facilities (including primary or secondary smelters) which combust waste for the primary purpose of recovering metals, (B) qualifying small power production facilities, as defined in section 3(17)(C) of the Federal Power Act (16 U.S.C. 769(17)(C)), or qualifying cogeneration facilities, as defined in section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)), which burn homogeneous waste (such as units which burn tires or used oil, but not including refuse-derived fuel) for the production of electric energy or in the case of qualifying cogeneration facilities which burn homogeneous waste for the production of electric energy and steam or forms of useful energy (such as heat) which are used for industrial, commercial, heating or cooling purposes, or (C) air curtain incinerators provided that such incinerators only burn wood wastes, yard wastes and clean lumber and that such air curtain incinerators comply with opacity limitations to be established by the Administrator by rule.

42 U.S.C. 7429(g) (1) (emphasis added). Under section 129(g)(6) of the CAA, the term "solid waste" has the same meaning as set forth in the Solid Waste Disposal Act (SWDA). The SWDA defines "solid waste" as "any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities."[6] 42 U.S.C. 6903(27).

In adopting the solid waste incineration unit exemption under the CAIR trading programs, EPA expressly fashioned it to be "analogous" to the exemption for solid waste incineration units from being units (i.e., "utility units") subject to the Title IV Acid Rain Program. 70 Fed. Reg. 49708, 49729 (Aug. 24, 2005); see also 71 Fed. Reg. 25328, 25348 (Apr. 28, 2006). The exemption from the Acid Rain Program was established by Congress in CAA section 129(h)(4), which provides:

> A solid waste incineration unit shall not be a utility unit as defined in title IV: *Provided,* That, more than 80 per centum of its annual average fuel consumption measured on a Btu basis, during a period or periods to be determined by the Administrator, is from a fuel (including any waste burned as a fuel) other than a fossil fuel. 42 U.S.C. 7429(h)(4).

EPA implemented CAA section 129(h)(4) in § 72.6(b)(7), which includes, in a list of categories of units that "are not affected units subject to the requirements of the Acid Rain Program," the following category for solid waste incineration units:

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[6] In provisions not relevant here, the solid waste definition in the SWDA also explicitly excludes certain identified materials.

> A solid waste incineration unit, if more than 80 percent (on a Btu basis) of the annual fuel consumed at such incinerator is other than fossil fuels. For solid waste incinerators which began operation before January 1, 1985, the average annual fuel consumption of non-fossil fuels for calendar years 1985 through 1987 must be greater than 80 percent for such an incinerator to be exempt. For solid waste incinerators which began operation after January 1, 1985, the average annual fuel consumption of non-fossil fuels for the first three years of operation must be greater than 80 percent for such an incinerator to be exempt. If, during any three calendar year period after November 15, 1990, such incinerator consumes 20 percent or more (on a Btu basis) fossil fuel, such incinerator will be an affected source under the Acid Rain Program. 40 CFR 72.6(b)(7).

EPA defined "fossil fuel," for purposes of the Acid Rain Program, as "natural gas, petroleum, coal, or any form of solid, liquid, or gaseous fuel derived from such material." 40 CFR 72.2 (definition of "fossil fuel"). In short, the language for the exemption for solid waste incineration units from the Acid Rain Program and the language in the solid waste incineration unit exemption under the CAIR trading programs are virtually the same.

Applying the solid waste incineration unit exemption under the CAIR trading programs, Wheelabrator asserted that the boiler at the Ridge facility is a solid waste incineration unit as defined under CAA section 129(g)(1) and that the exclusions in clauses (A), (B) or (C) of that definition do not apply to the boiler. The company stated that the Ridge facility combusts solid waste material from commercial or industrial establishments or the general public, is not required to have a permit under section 3005 of the SWDA because it does not burn any hazardous waste, and is not a materials recovery facility, a qualifying facility burning homogeneous waste, or an air curtain incinerator. Further, according to Wheelabrator, because tires are not fossil fuel and the boiler's non-fossil fuel consumption exceeds 80% of total fuel consumption on a Btu basis, the boiler is not a CAIR NO_x, SO_2, and NO_x Ozone Season unit.

<u>EPA's Determination</u>

As discussed above, the boiler at the Ridge facility meets the general criteria for being a CAIR NO_x, SO_2, and NO_x Ozone Season unit because the boiler is a fossil-fuel-fired boiler serving a generator with a nameplate capacity exceeding 25 MWe producing electricity for sale. Unless the boiler qualifies for the solid waste incineration unit exemption, the boiler will be subject to the CAIR trading programs. The initial requirement for this exemption obviously is that the boiler must be a solid waste incineration unit, as defined in section 129(g) of the CAA. The boiler is a distinct operating unit in the Ridge facility. Further, much of the materials that the boiler combusts is obtained from county and municipal waste collection facilities that collect from commercial or industrial establishments or the general public. If materials combusted in the boiler are solid waste, then the boiler will qualify as a solid waste incineration unit.

EPA notes that, as discussed above, the Ridge facility's title V permit allows the facility to burn, as up to 30 percent (by weight) of its quarterly fuel feed, a "combined total of tires, yard waste, and any waste wood that is defined as municipal solid waste in 40 CFR 60, Subpart Ea" (Ridge Title V permit at 12 (emphasis and asterisk removed)) and the facility burns materials that arguably may fall within that permit provision. However, because EPA is considering in other contexts what constitutes "solid waste" and thus what facilities are "solid waste incineration units", EPA cannot at this time make a determination about whether the Ridge facility combusts solid waste and is a solid waste incineration unit.

Specifically, section 129 of the CAA requires, among other things, that EPA establish emissions standards for "solid waste incineration units", as defined in CAA section 129(g)(1), which, under CAA section (g)(6), incorporates the definition of "solid waste" in the SWDA. The same term, "solid waste incineration unit" is used in CAA section 129(h)(4) to establish the solid waste incineration unit exemption under the Acid Rain Program, which, as discussed above, is virtually the same as the solid waste incineration unit exemption under the CAIR trading programs. In 2007, the United States Court of Appeals for the District of Columbia Circuit vacated and remanded two sets of EPA rules, one issued under CAA section 129 and defining the term "commercial or industrial solid waste incineration unit" and the other issued under CAA section 112 and setting emissions standards for industrial boilers and furnaces. NRDC v. EPA, 489 F.3d 1250 (D.C. Cir. 2007). In those rules, EPA had excluded from the category of commercial or industrial solid waste incineration units those units that can or do recover useful thermal energy from the combustion of solid waste. Id. at 1257. The Court held that any unit burning any "solid waste" at all must be treated as a solid waste incineration unit for purposes of section 129. Id. at 1257-61.

In response to the vacatur and remand, EPA recently issued an advanced notice of proposed rulemaking discussing in detail, and requesting comment on, possible approaches to identifying which non-hazardous secondary materials combusted in combustion units are "solid waste". Identification of Non-Hazardous Materials That Are Solid Waste, 74 Fed. Reg. 41 (January 2, 2009). EPA explained in the advanced notice that it must determine what non-hazardous secondary materials constitute "solid waste" because, under the Court's decision, a unit burning any "solid waste" must be regulated as a solid waste incineration unit. Id. at 44. In particular, a combustion unit burning non-hazardous material that is burned for fuel value or used as an ingredient in a manufacturing process and that is not a solid waste is properly regulated under CAA section 112, while a combustion unit burning such material that is a solid waste is properly regulated under CAA section 129. Id. EPA received extensive comments from about 80 parties (including industry, environmental groups, and state and local governments) on the advanced notice, is evaluating these comments, and will seek additional comments before ultimately issuing final rules in response to the vacatur and remand of its rules under CAA sections 112 and 129. Because EPA has not yet proposed, much less adopted as final, a definition of "solid waste" in that ongoing rulemaking proceeding, EPA concludes that any discussion of, or determination concerning, the

"solid waste" definition in this much more limited action involving an applicability determination for a single facility (i.e., the Ridge facility) would be premature. Addressing "the solid waste" definition first in the ongoing rulemaking will allow EPA to consider the definition in a much broader context where the full ramifications of alternative approaches to the definition can be considered and where EPA will have the benefit of comments and technical and other information from a wide range of interested parties.

Although EPA cannot at this time make a final determination as to whether the Ridge facility is combusting solid waste, EPA finds that the Ridge facility meets the remaining criteria for qualifying as a solid waste incineration unit. Specifically, the Ridge facility is not required to have a permit under section 3005 of the SWDA because, according to Wheelabrator, the boiler does not burn hazardous waste. In addition, EPA agrees that the exclusions in clauses (A), (B) or (C) of the solid waste incineration unit definition in CAA section 129(g)(1) do not apply to the Ridge facility. The facility is not a materials recovery facility (excluded under clause (A)) or an air curtain incinerator (excluded under clause (C)). While the facility is a qualifying small power production facility, the facility's heat input comes from combustion of several different types of materials. The facility therefore is not a qualifying facility that burns homogeneous waste (excluded under clause (B)). In short, EPA finds that the Ridge facility will qualify as a solid waste incineration unit if the facility combusts material that is determined by the Administrator to be solid waste as defined pursuant to EPA's ongoing rulemaking proceeding to identify which non-hazardous secondary materials are solid wastes when combusted in a unit.

EPA also finds that the boiler at the Ridge facility meets the remaining criterion for the solid waste incineration unit exemption of having average annual consumption of non-fossil fuel, for each rolling 3-year period since 1990, exceeding 80% of total fuel consumption on a Btu basis. As noted above, the CAIR trading program regulations define "fossil fuel" as "natural gas, petroleum, coal, or any form of solid, liquid, or gaseous fuel derived from such material." 40 CFR 97.102, 97.202, and 97.302 and 40 CFR 96.102, 96.202, and 96.302 (definition of "fossil fuel"). The only portions of the Ridge facility's heat input that could conceivably be fossil fuel under this definition are propane (which is derived from petroleum or natural gas) and tires (which contain materials derived from petroleum). As noted above, propane has never accounted for more than 1.13% of the facility's annual heat input. As explained below, EPA determines that, solely for purposes of applying the fuel-consumption requirement in the solid waste incineration unit exemption, tires are not fossil fuel.

Wheelabrator claimed that, although tires are manufactured from petroleum-derived materials, they are manufactured "to provide cushion and traction for the wheels of automobiles and other vehicles" and not as fuel (i.e., not to provide useful heat) and therefore are not fossil fuel. Wheelabrator pointed to EPA's regulations implementing section 111 of the CAA that define "fossil fuel" as "natural gas, petroleum, coal, or any form of solid, liquid, or gaseous fuel derived from such material <u>for the purpose of creating useful heat</u>" (40 CFR 60.41Da (definition of "fossil fuel") (emphasis added)).

However, in contrast with the part 60 definition, the "fossil fuel" definition in the Acid Rain Program and the CAIR trading programs lacks the above-underlined language and so seems more broadly worded.

In the Acid Rain and CAIR trading programs, fossil fuel is defined as "natural gas, petroleum, or coal or any form of solid, liquid, or gaseous fuel derived from such material." 40 CFR 72.2, 40 CFR 97.102, 97.202, and 97.302, and 40 CFR 96.102, 96.202, and 96.302 (definition of "fossil fuel"). On its face, this definition appears to include any material that is used in a boiler or combustion turbine as fuel (i.e., that is combusted in a boiler or combustion turbine) and is derived from natural gas, petroleum, or coal because the definition lacks the caveat that, in addition, the original purpose for which the material was produced must be for use as a fuel. EPA rejects Wheelabrator's contention (Wheelabrator's January 24, 2008 submission at 4, n.6) that the difference in language between the "fossil fuel" definition in part 60 and the definition in parts 72, 96, and 97 should be ignored by treating the original-purpose qualification as "implicit" in all circumstances where the latter definition is used. EPA maintains that the difference in language should not be ignored in the absence of compelling reasons for doing so. Wheelabrator showed, and EPA can find, no basis for treating the original-purpose qualification as implicit -- and thus for ignoring the lack of such an express qualification -- in all circumstances where the term "fossil fuel" is used in parts 72, 96, and 97. In short, the parts 72, 96, and 97 "fossil fuel" definition lacks the express original-purpose qualification included in, and so should generally be interpreted as broader than, the § 60.41Da "fossil fuel" definition .

However, EPA maintains that, while the broader interpretation of the parts 96 and 97 "fossil fuel" definition is generally applicable under the CAIR trading programs,[7] a narrower interpretation of that definition should be applied solely in the context of implementing the fuel-consumption requirement in the solid waste incineration unit exemption. As discussed above, both Congress -- in CAA section 129(h)(4) for the Acid Rain Program -- and EPA -- in the CAIR trading programs -- established an exemption for solid waste incineration units that produce electricity for sale and meet the other general applicability criteria for the respective trading programs. For reasons detailed below, EPA is concerned that, if the broader interpretation of the "fossil fuel" definition were used in implementing the fuel-consumption requirement in the exemption for solid waste incineration units that produce electricity for sale, it is likely that very few, if any, units would meet the exemption requirement that "fossil fuel" comprise less than 20% of total heat input. As a result, very few or no units producing electricity for sale would be able to qualify for the exemption, whether under the Acid Rain Program or the CAIR trading programs, and the broader interpretation would, in effect, virtually nullify the exemption. Since Congress clearly intended to create a solid waste incineration unit exemption from the Acid Rain Program and EPA expressly intended to continue an analogous exemption in the CAIR trading programs, use of the broader interpretation of

[7] For example, the broader interpretation is used in the general applicability provisions of the CAIR trading program regulations. See, 40 CFR 97.104(a), 97.204(a), and 97.304(a) and 40 CFR 96.104(a), 96.204(a), and 96.304(a).

"fossil fuel" would be inconsistent with EPA's intent in adopting the CAIR trading program regulations.

Specifically, the problem caused by application of the broader interpretation of "fossil fuel" arises because many types of residential and commercial end products -- including tires -- are comprised of materials derived from fossil fuels, are not manufactured for the purpose of being used as fuel, but are, at their end of their useful lives as residential and commercial end products, combusted in some units producing electricity for sale (such as municipal waste combustors producing electricity for sale). For example, petroleum is used to produce synthetic rubber, carbon black, plastics, paraffin wax, and synthetic fibers, which materials are used to manufacture one or more residential and commercial end products such as tires, footwear, bottles and other containers, consumer durable goods, consumer product packaging, cosmetics, and polyester-, nylon-, olefin- and acrylic-based textiles.[8] After being used for residential and commercial purposes, these end products are used as fuel in some units producing electricity for sale. Of course, such units often also burn other materials.[9]

In considering the impact of using the broader interpretation of "fossil fuel" in applying the fuel-consumption requirement in the solid waste incineration unit exemption, EPA begins with data developed by the Energy Information Administration (EIA). These data concern the composition of what EIA refers to as "municipal solid waste," which comprises the materials potentially available for combustion in solid waste incineration units producing electricity for sale and includes materials that may be combusted with energy recovery, landfilled, and otherwise disposed of.[10] According to EIA, "municipal solid waste" as generated, is made up of two components, a "biogenic" component and a residual "non-biogenic" component.[11] EIA defines "biogenic" as

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8 See Ridge's September 28, 2007 submission at 4; and U.S. Environmental Protection Agency, Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2007, EPA-430-R-09-004, at 3-48 and Annex 3.6 (Apr. 2009), available at http://www.epa.gov/climatechange/emissions/downloads09/InventoryUSGhG1970-2007.pdf and http://www.epa.gov/climatechange/emissions/downloads09/Annex3.pdf .

9 See Energy Information Administration, "EIA-906/920/923 January-December Final 2007 and Nonutility Energy Balance Data 2007 Excel Format" (Je. 2009), available at http://www.eia.doe.gov/cneaf/electricity/page/eia906_920.html .

10 Energy Information Administration, Methodology for Allocating Municipal Solid Waste to Biogenic/Non-Biogenic Energy at 10 (May 2007), available at http://www.eia.doe.gov/cneaf/solar.renewables/page/mswaste/msw_report.html . EPA notes that EIA's definition of "municipal solid waste" was adopted for purposes of data collection and reporting, not for purposes of any regulatory programs administered by EPA, and has no bearing on EPA's ongoing consideration of the regulations vacated and remanded in NRDC, 489 F.3d 1250.

11 EIA, Methodology for Allocating Municipal Solid Waste to Biogenic/Non-Biogenic Energy at 6.

including all materials "produced by biological processes of living organisms"[12] and as consisting of newsprint, paper, containers and packaging, leather, textiles, yard trimmings, food wastes, wood, leather, and other miscellaneous biogenic materials. EIA defines "non-biogenic" as including any material that is not biogenic and as consisting of plastics, rubber and other miscellaneous non-biogenic materials.[13] According to EIA, biogenic materials comprised 67% of the heat input of municipal solid waste in 1989, and the biogenic portion of municipal solid waste heat input has declined steadily since then and was 56% in 2005.[14] EIA attributes the decline in the biogenic portion to a decrease in paper (which is biogenic and whose recycling rates have increased) entering the stream of materials and an increase in the amount of plastic (which is non-biogenic and comprises materials with some of the highest heat content and whose recycling rates are low).[15]

EIA's approach in categorizing "municipal solid waste" is somewhat different than the approach reflected in the solid waste incineration unit exemption of categorizing material burned in a solid waste incineration unit as "fossil fuel" or "non-fossil fuel." However, if "fossil fuel" is more broadly interpreted to include natural gas, petroleum, or coal or any material derived from them even if originally produced for a non-fuel purpose, then the two sets of categories (biogenic/non-biogenic and non-fossil fuel/fossil fuel) result in a similar division of the types of materials found in "municipal solid waste" and potentially available for combustion in solid waste incineration units. Specifically, "fossil fuel", when more broadly defined, corresponds generally to the non-biogenic component, and the residual category, i.e.,"non-fossil fuel," corresponds generally to the biogenic component, with certain exceptions.

In particular, EIA treats tires as non-biogenic, effectively ignoring the natural rubber in tires that is not fossil-fuel derived, and treats textiles as biogenic, effectively ignoring the synthetic fibers in textiles that are fossil-fuel derived. Depending on the type of tire, tires range in natural rubber content from 14-27% by weight[16], while synthetic fibers make up on average 55% of the total fiber discarded.[17] Further, EIA

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[12] Energy Information Administration, "Glossary" (definition of "biogenic") (Je. 2008), available at http://www.eia.doe.gov/glossary/glossary_b.htm .

[13] See EIA, Methodology for Allocating Municipal Solid Waste to Biogenic/Non-Biogenic Energy at 11.

[14] Id. at 6.

[15] Id. at 5 and 13.

[16] Rubber Manufacturers Association, "Scrap Tires: Scrap Tire Characteristics", https://www.rma.org/scrap_tires/scrap_tire_markets/scrap_tire_characteristics (Je. 2008).

[17] U.S. EPA, Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2007, EPA-430-R-09-004, Annex 3, at A-156.

includes glass and metals as non-biogenic, but, obviously, they are not fossil fuel (no matter how the term "fossil fuel" is interpreted).

These discrepancies do not prevent use of the EIA data in analyzing the heat input contribution of the fossil-fuel and non-fossil-fuel materials potentially available for combustion in solid waste incineration units as a whole that produce electricity for sale. First, the categorization of tires as non-biogenic is of little consequence because tires are not generally combusted by units producing electricity for sale. The Rubber Manufacturers Association's "Scrap Tires Markets in the United States, 9th Biennial Report" indicates that fewer than 30 "utility units" or "waste-to-energy" (or "tire-to-energy") units use any tire-derived fuel.[18] Second, in contrast to tires, textiles consist of about 6% (by weight) of the material available for combustion by solid waste incineration units as a whole and are combusted by many units (such as municipal waste combustors) that produce electricity for sale.[19] However, EIA's disregarding of the non-biogenic content of textiles when dividing "municipal solid waste" into biogenic vs. non-biogenic results in underestimation by EIA of the amount of non-biogenic material, and overestimation by EIA of the amount of biogenic material, potentially available for combustion by solid waste incineration units. Third, the inclusion of glass and metals in the non-biogenic category is of little consequence because they have little or no heat input and thus can be disregarded.[20] In summary, the net effect of these discrepancies is that using EIA's division of "municipal solid waste" into the non-biogenic and biogenic contributions based on heat input as a proxy for a division into fossil-fuel (under the broader interpretation) and non-fossil-fuel contributions likely overstates the biogenic or non-fossil-fuel contribution, and understates the non-biogenic or fossil-fuel contribution, of materials potentially available for combustion in solid waste incineration units producing electricity for sale.

Yet, even assuming, arguendo, that EIA's estimated contribution (67% in 1989 declining to 56% in 2005) of biogenic heat input in the materials potentially available for solid waste incineration units producing electricity for sale is equivalent to the percentage contribution of non-fossil-fuel heat input (under the broader interpretation of "fossil fuel"), these percentages of biogenic or non-fossil-fuel heat input come nowhere near to

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[18] Rubber Manufacturers Association, "Scrap Tires Markets, 9th Biennial Report" at appendix C (May 2009), available at http://www.rma.org/scrap_tires.

[19] U.S. Environmental Protection Agency, Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2007 at 5 (Nov. 2008), available at http://www.epa.gov/epawaste/nonhaz/municipal/pubs/msw07-fs.pdf (6% figure is calculated as: (weight of textiles generated in MSW – weight of textiles recovered from MSW) ÷ (weight of generated MSW – weight of materials recovered from MSW), using data from Table 1.)

[20] See EIA, Methodology for Allocating Municipal Solid Waste to Biogenic/Non-Biogenic Energy at 11-12 (treating glass and metals as having no heat input).

non-fossil-fuel heat input exceed 80% of a unit's total heat input on a 3-year average basis. Of course, the specific types of the materials -- out of the total stream of materials potentially available for combustion by solid waste incineration units producing electricity for sale -- combusted by individual units can vary from unit to unit. However, because the biogenic/non-fossil-fuel portion of materials potentially available to solid waste incineration units producing electricity for sale is so much lower than 80%, existing units (e.g., municipal waste combustors) burning unsorted materials in this stream (e.g., municipal solid waste) would be highly unlikely to be able to meet the requirement of having more than 80% of heat input comprising "non-fossil fuel" if "fossil fuel" were more broadly interpreted to include petroleum-derived end products (such as tires and products made of plastics). Similarly, it is likely that very few, if any, existing units burning portions of this stream of materials would be able to meet this 80% "non-fossil fuel" requirement under the broader interpretation of "fossil fuel". The only existing units producing electricity for sale that could potentially meet this requirement of the solid waste incineration unit exemption would be facilities whose heat input is almost entirely organic materials, of which there are very few.[21] EPA maintains that such a result would be inconsistent with EPA's intent in adopting the solid waste incineration unit exemption in the context of the CAIR trading programs.

EPA's position on using the narrower interpretation of "fossil fuel" in applying the fuel-consumption requirement in the solid waste incineration unit exemption is also supported by EPA's categorization of fuels and treatment of solid waste incineration units in developing the CAIR regional and State budgets. For example, in setting the regional and State budgets for SO_2 and NO_x emissions, EPA used EIA data that treated tires and "municipal solid waste" as not being fossil fuel. As explained in the Technical Support Document for the CAIR Notice of Final Rulemaking, Regional and State SO_2 and NOx Emissions Budgets, EPA-HQ-OAR 2003-0053 at 1 (Mar. 2005) (TSD),[22] EPA first determined the amount of emission reductions that would be achievable based on a highly cost-effective control strategy for the CAIR region. EPA then used the amount of reductions that were highly cost-effective for electric generating units (EGUs) for the region to set regional budgets or caps based on actual total heat input for EGUs for a given period. Finally, EPA apportioned the regional budgets among the States in the CAIR region. Id. While the State SO_2 budgets were based on existing allowance allocations in the Acid Rain Program, the State NO_x budgets were determined by adjusting each State's actual heat input for EGUs by a fuel adjustment factor (1.0 for coal, 0.6 for oil, and 0.4 for natural gas and any other fuel) and giving each State a share of the regional budget based on the State's proportionate share of regional adjusted heat

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[21] See EIA, "EIA-906/920 January-December Final 2007 and Nonutility Energy Balance Data 2007 Excel Format" (showing only one facility burning enough wood to approach the requirement of biogenic heat input exceeding 80%). Moreover, as discussed above, EPA has not yet determined whether the wood burned in this or other facilities constitutes "solid waste".

[22] Available at www.epa.gov/CAIR/pdfs/finaltech06.pdf .

of the regional budget based on the State's proportionate share of regional adjusted heat input. Id. at 8-9. In order to apply the fuel adjustment factors, EPA used information from EIA's database that categorizes sources of heat input as "fossil" and "other fuel" and "coal," "oil," and "gas" and treats tires and tire-derived fuel and "municipal solid waste" as "other," i.e., non-fossil, fuel.[23] Id. at 22-24.

More importantly, EPA expressly stated in CAIR that the CAIR does not require any emissions reductions from "MWCs" (municipal waste combustion units) or "MSW [municipal solid waste] plants," and thus the regional and State budgets do not reflect such reductions. Corrected Response to Significant Public Comments on the Proposed Clean Air Interstate Rule, Docket # OAR–2003–0053–2172 at 175 and 274 (Apr. 2005);[24] see also 70 Fed. Reg. 49708, 49729 (Aug. 24, 2005). EPA had found that "waste incinerators" produce only small percentages of CAIR region-wide SO_2 and NO_x emissions, i.e., 0.1% of SO_2 emissions and 0.7% of NO_x emissions. Technical Support Document, Identification and Discussion of Sources of Regional Point Source NOx and SO_2 Emissions Other Than EGUs at 5 and 7 (Jan. 2004).[25] Since the State budgets under CAIR do not reflect emission reductions from MWCs or MSW plants, EPA maintains that it would be anomalous to interpret the solid waste incineration unit exemption in the CAIR trading programs to cover very few, if any, MWCs or MSW plants producing electricity for sale.[26]

For the above reasons, EPA believes that it is reasonable to adopt the narrower construction of the term "fossil fuel" solely for purposes of applying the fuel-consumption requirement in the solid waste incineration unit exemption because there are compelling reasons for treating, as implicit in the "fossil fuel" definition applied solely in that context, a limitation of "fossil fuel" to materials derived for the purpose of creating useful heat. Consistent with this approach, EPA finds that, solely in the context of

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[23] However, the EIA data categorize blast furnace gas and coke oven gas, which are derived from coal but not for the purpose of creating useful heat, as fossil fuel. Id. at 23-24.

[24] Available at www.epa.gov/CAIR/technical.html#response .

[25] Available at www.epa.gov/CAIR/pdfs/tm0127.pdf .

[26] Wheelebrator suggests, because CAA section 129(h)(4) exempts solid waste incineration units at least 80% of whose heat input is from "a fuel (including any waste burned as a fuel) other than a fossil fuel", "waste" cannot be treated as fossil fuel. EPA rejects this argument as inconsistent with the grammatical structure of the quoted statutory language, where the parenthetical phrase clarifies the term "fuel" to include "waste" used as fuel and results in a requirement that 80% of all fuel (including "waste" used as fuel) must, on a heat input basis, be non-fossil.

applying this requirement, tires are not fossil fuel.[27] EPA therefore concludes that, if the boiler at the Ridge facility is determined to combust "solid waste" as defined pursuant to the above-mentioned, ongoing EPA rulemaking, the boiler will not be a CAIR NO_x, SO_2, and NO_x Ozone Season unit under the CAIR trading programs.

EPA's determination relies on the accuracy and completeness of the information provided by Wheelabrator Ridge Energy Inc. in the July 11, 2007 request and the September 28, 2007, and January 24, June 26, and July 3, 2008 and February 27, April 27 and 29, 2009 submissions and at the November 8, 2007 and January 24, 2008 meetings with EPA. If you have any questions regarding this determination, please contact Dwight Alpern at (202) 343-9151. Thank you for your continued cooperation.

Sincerely,

Sam Napolitano, Director
Clean Air Markets Division

cc: Dave McNeal, EPA Region IV
Errin Pichard, Florida DEP

[27] However, as noted above, the question of whether tires and other materials are solid wastes will be addressed in the ongoing rulemaking proceeding to identify which non-hazardous secondary materials are solid wastes when combusted in a unit.