

controversial. If we receive adverse comments, however, we will publish a timely withdrawal of the direct final rule and address the comments in subsequent action based on this proposed rule.

We do not plan to open a second comment period, so anyone interested in commenting should do so at this time. If we do not receive adverse comments, no further activity is planned. For further information, please see the direct final action.

Dated: January 8, 2004.

**Wayne Nastri,**

*Regional Administrator, Region IX.*

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**BILLING CODE 6560-50-P**

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 60

**[OAR-2003-0119; FRL-7623-6]**

**RIN 2060-AF91**

### Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial or Industrial Solid Waste Incineration Units

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Notice of proposed rule; supplemental solicitation of comments.

**SUMMARY:** This document solicits public comment on definitions of "solid waste," "commercial and industrial waste," and "commercial and industrial solid waste incineration unit," for purposes of EPA's new source performance standards (NSPS) and emission guidelines (EG) for commercial and industrial solid waste incineration (CISWI) units under section 129 of the Clean Air Act (CAA).

On December 1, 2000, EPA promulgated final rules for CISWI units. After promulgation of the final CISWI rule, EPA accepted a voluntary remand, without vacature, in response to a petition for review challenging the final CISWI rule. Because the final rule was not vacated, the requirements of the final CISWI rule remain in effect during the remand. Also, subsequent to promulgation of the final CISWI rule, EPA granted a petition for reconsideration related to the definitions of "solid waste" and "commercial and industrial waste" in the CISWI final rule. This notice provides for additional proceedings related to these definitions, consistent

with EPA's grant of the earlier petition for reconsideration.

**DATES: Comments.** Comments must be received on or before March 18, 2004.

**ADDRESSES: Comments.** By U.S. Postal Service, send comments (in duplicate, if possible) to: Air and Radiation Docket and Information Center (6102T), Attention, Docket ID No. OAR-2003-0119, U.S. EPA, 1200 Pennsylvania Avenue, NW., Washington, DC 20460. In person or by courier, deliver comments (in duplicate, if possible) to: Air and Radiation Docket and Information Center (6102T), Attention Docket ID No. OAR-2003-0119, Room B-102, U.S. EPA, 1301 Constitution Avenue, NW., Washington, DC 20460. We request a separate copy of each public comment be sent to the contact person listed below (*see FOR FURTHER INFORMATION CONTACT*).

**Docket.** The EPA has established an official public docket for this action under Docket ID No. OAR-2003-0119 and Docket ID No. A-94-32. The docket is located at the U.S. EPA, 1301 Constitution Avenue, NW., Washington, DC 20460, Room B-102, and may be inspected from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays.

**FOR FURTHER INFORMATION CONTACT:** For information concerning this notice, contact Fred Porter at (919) 541-5251, Emission Standards Division (C439-01), U.S. Environmental Protection Agency, Research Triangle Park, NC 27711.

**SUPPLEMENTARY INFORMATION: Docket.** The EPA has established an official public docket for this action under Docket ID No. OAR-2003-0119 and Docket ID No. A-94-32. The official public docket consists of the documents specifically referenced in this action, any public comments received, and other information related to this action. All items may not be listed under both docket numbers, so interested parties should inspect both docket numbers to ensure that they have received all materials relevant to this action. Although a part of the official docket, the public docket does not include Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. The official public docket is the collection of materials that is available for public viewing at the U.S. EPA, 1301 Constitution Avenue, NW., Room B-102, Washington, DC 20460. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is (202) 566-1744. The telephone number for the Air Docket is (202) 566-1742.

**Electronic Access.** An electronic version of public docket is available through EPA's electronic public docket and comment system, EPA Dockets. You may use EPA dockets at <http://www.epa.gov/edocket/> to submit or review public comments, access the index of the contents of the official public docket, and to access those documents in the public docket that are available electronically. Once in the system, select "search," then key in the appropriate docket identification number.

Certain types of information will not be placed in the EPA dockets. Information claimed as confidential business information (CBI) and other information whose disclosure is restricted by statute, which is not included in the official public docket, will not be available for public viewing in EPA's electronic public docket. The EPA's policy is that copyrighted material will not be placed in EPA's electronic public docket but will be available only in printed paper form in the official public docket. Although not all docket materials may be available electronically, you may still access any of the publicly available docket materials through the docket facility identified in this notice.

For public commenters, it is important to note that EPA's policy is that public comments, whether submitted electronically or in paper, will be made available for public viewing in EPA's electronic public docket as EPA receives them and without change, unless the comment contains copyrighted material, CBI, or other information whose disclosure is restricted by statute. When EPA identifies a comment containing copyrighted material, EPA will provide a reference to that material in the version of the comment that is placed in EPA's electronic public docket. The entire printed comment, including the copyrighted material, will be available in the public docket.

Public comments submitted on computer disks that are mailed or delivered to the docket will be transferred to EPA's electronic public docket. Public comments that are mailed or delivered to the docket will be scanned and placed in EPA's electronic public docket. Where practical, physical objects will be photographed, and the photograph will be placed in EPA's electronic public docket along with a brief description written by the docket staff.

You may submit comments electronically, by mail, by facsimile, or through hand delivery/courier. To ensure proper receipt by EPA, identify

the appropriate docket identification number in the subject line on the first page of your comment. Please ensure that your comments are submitted within the specified comment period. Comments submitted after the close of the comment period will be marked "late." The EPA is not required to consider these late comments.

**Electronically.** If you submit an electronic comment as prescribed below, EPA recommends that you include your name, mailing address, and an e-mail address or other contact information in the body of your comment. Also include this contact information on the outside of any disk or CD ROM you submit and in any cover letter accompanying the disk or CD ROM. This ensures that you can be identified as the submitter of the comment and allows EPA to contact you in case EPA cannot read your comment due to technical difficulties or needs further information on the substance of your comment. The EPA's policy is that EPA will not edit your comment, and any identifying or contact information provided in the body of a comment will be included as part of the comment that is placed in the official public docket and made available in EPA's electronic public docket. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment.

Your use of EPA's electronic public docket to submit comments to EPA electronically is EPA's preferred method for receiving comments. Go directly to EPA Dockets at <http://www.epa.gov/edocket> and follow the online instructions for submitting comments. Once in the system, select "search" and then key in Docket ID No. OAR-2003-0119. The system is an "anonymous access" system, which means EPA will not know your identity, e-mail address, or other contact information unless you provide it in the body of your comment.

Comments may be sent by electronic mail (e-mail) to [a-and-r-docket@epa.gov](mailto:a-and-r-docket@epa.gov), Attention: Docket ID No. OAR-2003-0119. In contrast to EPA's electronic public docket, EPA's e-mail system is not an "anonymous access" system. If you send an e-mail comment directly to the Docket without going through EPA's electronic public docket, EPA's e-mail system automatically captures your e-mail address. E-mail addresses that are automatically captured by EPA's e-mail system are included as part of the comment that is placed in the official public docket and made available in EPA's electronic public docket.

You may submit comments on a disk or CD ROM that you mail to the mailing

address identified in this notice. These electronic submissions will be accepted in WordPerfect or ASCII file format. Avoid the use of special characters and any form of encryption.

**By mail.** Send your comments (in duplicate, if possible) to: Air and Radiation Docket and Information Center (6102T), Attention: Docket ID No. OAR-2003-0119, U.S. EPA, 1200 Pennsylvania Avenue, NW., Washington, DC 20460.

**By Hand Delivery or Courier.** Deliver your comments (in duplicate, if possible) to: Air and Radiation Docket and Information Center, Attention: Docket ID No. OAR-2003-0119, U.S. EPA, 1301 Constitution Avenue, NW., Room B-102, Washington, DC 20460. Such deliveries are only accepted during the Docket Center's normal hours of operation as identified in this notice. We request that a separate copy also be sent to the contact person listed under **FOR FURTHER INFORMATION CONTACT**.

**By Facsimile.** Fax your comments to: (202) 566-1741, Attention: Docket ID No. OAR-2003-0119.

**CBI.** Do not submit information that you consider to be CBI through EPA's electronic public docket or by e-mail. Send or deliver information identified as CBI only to the following address: Roberto Morales, OAQPS Document Control Officer (C404-02), U.S. EPA, 109 T.W. Alexander Drive, Research Triangle Park, NC 27711, Attention: Docket ID No. OAR-2003-0119. You may claim information that you submit to EPA as CBI by marking any part or all of that information as CBI (if you submit CBI on disk or CD ROM, mark the outside of the disk or CD ROM as CBI and then identify electronically within the disk or CD ROM the specific information that is CBI). Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

**Outline.** The information presented in this document is organized as follows:

- I. Background
  - A. Statutory Background
  - B. Regulatory Background
  - II. Discussion
  - A. What Is the Significance of EPA's Definitions?
  - B. What Is EPA's Rationale for Its Definitions?
- III. Request for Comment
- IV. Future Action

## I. Background

### A. Statutory Background

Section 129 of the CAA, entitled "Solid Waste Combustion," requires EPA to promulgate emissions standards and other requirements for "each category of solid waste incineration

unit." Section 129(a)(1) identifies five categories of solid waste incineration units:

(1) Units with a capacity of greater than 250 tons per day combusting municipal waste,

(2) Units with a capacity equal to or less than 250 tons per day combusting municipal waste,

(3) Units combusting hospital, medical and infectious waste,

(4) Units combusting commercial or industrial waste, and

(5) Unspecified "other categories of solid waste incineration units."

For each category of incineration unit identified under Section 129, EPA must establish numerical emission limits for at least nine specified pollutants (particulate matter, sulfur dioxide, hydrogen chloride, oxides of nitrogen, carbon monoxide, lead, cadmium, mercury, and dioxins and dibenzofurans), and for opacity as appropriate. Section 129 provides EPA with the discretion to establish emission limitations for other pollutants as well.

Section 129 of the CAA directs EPA to set maximum achievable control technology (MACT) type standards for incinerators. Accordingly, EPA's standards under section 129 must "reflect the maximum degree of reduction in emissions of [the listed] air pollutants \* \* \* that the Administrator, taking into consideration the cost of achieving such emission reductions, and any non-air quality health and environmental impacts and energy requirements, determines is achievable for new or existing units in each category." (See CAA section 129(a)(2).) However, the standards for new units must not be less stringent than the emissions control that is achieved in practice by the best controlled similar unit, and the standards for existing sources must not be less stringent than the average emissions limitation achieved by the best performing 12 percent of units in the category.

Additionally, the statute identifies, to some degree, which units EPA should and should not regulate. Section 129(g)(1) of the CAA defines the term "solid waste incineration unit" as a unit "which combusts any solid waste material." Also, that section identifies several types of units that are not solid waste incineration units, including units required to have a permit under section 3005 of the Solid Waste Disposal Act (SWDA); materials recovery facilities; certain qualifying small power production facilities or qualifying cogeneration facilities which burn homogeneous waste; and certain air curtain incinerators that meet opacity limitations established by EPA. In

addition, section 129(g)(6) states that the term “solid waste \* \* \* shall have the meanings established by the Administrator pursuant to the Solid Waste Disposal Act (SWDA).”

Finally, Section 129(h) of the CAA states that “no solid waste incineration unit subject to performance standards under this section and section 111 shall be subject to standards under section 112(d) of this Act.”

#### B. Regulatory Background

One important part of EPA’s rulemaking process is determining what universe of sources will be subject to regulation. With regard to CISWI units, the statutory provisions of sections 129(a), (g) and (h) of the CAA make it clear that EPA must determine, as a part of the regulatory process, where to draw the line between combustion units subject to regulation under section 129 and combustion units subject to regulation under other statutory authority (such as CAA section 112(d)). For example, the reference in section 129(g)(1) to a permit issued under section 3005 of the SWDA, refers to units burning hazardous solid wastes. This effectively limits the scope of EPA’s authority under section 129 to the regulation of solid waste incineration units that burn nonhazardous solid waste. Similarly, the language of CAA section 129(h) makes clear the Congressional intent for EPA to regulate nonhazardous combustion sources under either CAA section 129 or CAA section 112, but not both. Thus, for the CISWI category, EPA must determine which sources to regulate as commercial and industrial solid waste incineration units under section 129, and which to regulate as combustion units under section 112 (e.g., boilers and process heaters).

The EPA proposed regulations for CISWI units on November 30, 1999 (64 FR 67092). The proposal included emissions limitations and a detailed definition of “solid waste” that was intended to distinguish between nonhazardous solid wastes and other materials (e.g., hazardous solid waste and fuel) burned in combustion units at commercial and industrial facilities. The definition served to identify those units that would be considered commercial and industrial nonhazardous solid waste incineration units, and, therefore, subject to the proposed regulations. In addition, consistent with CAA section 129(h), these definitions also helped to identify those units which would not be subject to emission standards under section 112. In the November 1999 proposal, to distinguish between hazardous solid

wastes, nonhazardous solid wastes, fuels, and other materials not considered solid waste, EPA defined solid waste as follows:

*Solid waste* means, for the purpose of this subpart only, any solid, liquid, semisolid, or contained gaseous material, which is combusted, including but not limited to materials listed in paragraph (1) of this definition. Solid waste excludes fuels defined in paragraph (2) of this definition and materials specifically listed in paragraph (3) of this definition.

(1) The following materials are solid wastes, regardless of the provisions in paragraph (2) of this definition:

(i) Any material which is combusted without energy recovery (*i.e.*, where the material displaces other fuels to produce useful heat), except as provided in paragraph (3) of this definition.

(ii) Municipal solid waste, as defined in 40 CFR part 60, subpart Ea, subpart Eb, subpart AAAA and subpart BBBB.

(iii) Hospital waste, as defined in 40 CFR part 60, subpart Ec.

(iv) Medical/infectious waste, as defined in 40 CFR part 60, subpart Ec.

(v) Resource Conservation and Recovery Act hazardous wastes, as defined in 40 CFR part 261.

(2) The following materials are fuels when combusted in a device that incorporates energy recovery as part of its integral design (*e.g.*, for the production of hot water or steam). The combustion chamber and the energy recovery system must be physically formed into one manufactured or assembled unit. A unit in which the combustion chamber and the energy recovery system are joined only by ducts or connections carrying flue gas is not integrally designed.

(i) Biomass fuel, coal, natural gas, and oil, as defined elsewhere in this section;

(ii) Materials that have a heat content of 5,000 Btu/lb or more as fired. This criterion applies to each individual feed stream to a combustion unit.

(3) The following materials are not solid waste when combusted for the primary purpose of recovering chemical constituents: pulping liquors (*i.e.*, black liquor) that are reclaimed in a pulping liquor recovery process and reused in the pulping process; spent sulfuric acid used to produce virgin sulfuric acid; and wood and coal feedstock for the production of charcoal.

The EPA explained the reasoning behind the proposed definition of solid waste as follows:

[T]he basic structure of a definition of nonhazardous solid waste that emerges follows this premise: Materials that are burned are not nonhazardous solid waste if they are hazardous solid waste, if they are fuels burned to recover energy, or if they are certain identified materials burned to recover their chemical constituents. All other materials, when burned, are nonhazardous solid waste.

With a definition of hazardous waste available, a definition of those materials that are fuels (when burned to recover energy) is the next piece necessary to develop this

definition of nonhazardous waste, for the purpose of regulations developed under section 129.

Some materials, when burned to recover energy (*e.g.*, for the production of hot water or steam), have a long history of being considered fuels. These materials are coal, oil, gas, and biomass (*e.g.*, wood and other vegetative agricultural and silvicultural materials). Burning coal, oil, gas, and biomass produces the majority of the energy consumed in the United States. In addition to these materials, other materials are often burned as fuel to recover energy and meet the needs of consumers, as well as industrial, manufacturing, and commercial operations.

As mentioned earlier, the prime indicator of whether materials could be used as fuel (*i.e.*, can be burned to recover energy) is their heat value—the British thermal units (Btu) of energy released from burning a pound (lb) of these materials. With continuing advances in combustion technology, materials with lower and lower heat value can be burned to recover energy; however, those materials with a “high” heat value are the best fuels, and it is these types of materials that are commonly and widely viewed as fuels. Thus, for the purpose of regulations developed under section 129 of the CAA, the Administrator proposes that materials with high heat value, when burned to recover energy, are fuels. (When materials are burned without heat recovery, regardless of their heat value, they are considered wastes.)

A delineator of high heat value emerges when considering the heat values of those materials mentioned above, which are clearly fuels when burned to recover energy (*i.e.*, gas, oil, coal, and biomass). Heat values for gas are the highest and frequently above 20,000 Btu/lb; those for oil can range from about 17,000–20,000 Btu/lb; those for coal can range from about 6,000–15,000 Btu/lb; and those for biomass can range from about 5,000–10,000 Btu/lb. Thus, a heat value of 5,000 Btu/lb serves to delineate between materials with high heat value and materials with low heat value. The Administrator proposes that materials with a heat value of 5,000 Btu/lb or more, when burned to recover energy, are fuel (subject to regulation under section 112) and not nonhazardous solid waste subject to regulation under section 129.

Thus, the proposal would not have identified a combustion unit with energy recovery (*i.e.*, heat recovery) at a commercial or industrial facility, which burned certain identified or listed materials with a heat content of 5000 British thermal units per pound (Btu/lb) or greater, as a CISWI unit, because such a unit would not be burning “solid waste.”

After receiving public comment on this approach, EPA determined that this definition of “solid waste” was unworkable for purposes of identifying CISWI units. The EPA published its final CISWI rule on December 1, 2000 (65 FR 75338) and explained the following in the final rule:

[W]e agree that several of today’s combustion technologies, including some

emerging technologies, may be capable of burning materials with a heat value of less than 5,000 Btu/lb to recover energy. Therefore, we have deleted the requirement from the definition of solid waste in the final NSPS and EG.

As we indicated in the preamble to the November 1999 proposal, the main purpose of the proposed definition of nonhazardous solid waste was to identify which materials when burned by CISWI units would be subject to regulations developed under section 129, and which materials when burned would be subject to regulations to be developed under section 112. Consideration of the above comments led us to conclude that the proposed definitions of "CISWI unit" and "solid waste" created the potential for overlap with rules we are developing under section 112, such as the boiler MACT.

The primary difference between incinerators and boilers is that incinerators burn materials for the purpose of disposal, whereas boilers burn materials for the purpose of recovering energy. Thus, we believe the concept of energy recovery is the key to distinguishing between CISWI units (which will be regulated under section 129) and boilers (which will be regulated under section 112). Specifically, commercial and industrial units burning materials without energy recovery are disposing of the materials, that is, they are treating such materials as commercial or industrial waste, and they should be regulated as CISWI units under section 129. In contrast, commercial and industrial units burning materials with energy recovery, that is, treating such materials as fuel, should be regulated under section 112.

Instead of adopting the proposed definition of "solid waste," EPA adopted a general definition of "solid waste" that closely mirrors the definition of solid waste found at section 6903(27) of the SWDA and in several places in EPA's regulations under that statute:

Solid waste means 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, agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1342), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2014). For purposes of this subpart and subpart CCCC, only, solid waste does not include the waste burned in the fifteen types of units described in section 60.2555.

The EPA also adopted more specific definitions of "commercial and industrial waste" and "commercial and

industrial solid waste incineration unit," to identify more precisely those units at commercial and industrial facilities that EPA considered appropriate for regulation under the final CISWI rule. These definitions are as follows:

Commercial and industrial waste means solid waste combusted in an enclosed device using controlled flame combustion without energy recovery that is a distinct operating unit of any commercial or industrial facility (including field-erected, modular, and custom built incineration units operating with starved or excess air), or solid waste combusted in an air curtain incinerator without energy recovery that is a distinct operating unit of any commercial or industrial facility.

Commercial and industrial solid waste incineration (CISWI) unit means any combustion device that combusts commercial and industrial waste, as defined in this subpart. The boundaries of a CISWI unit are defined as, but not limited to, the commercial or industrial solid waste fuel system, grate system, flue gas system, and bottom ash. The CISWI unit does not include air pollution control equipment or the stack. The CISWI unit boundary starts at the commercial and industrial solid waste hopper (if applicable) and extends through two areas:

(1) The combustion unit flue gas system, which ends immediately after the last combustion chamber.

(2) The combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. It includes all ash handling systems connected to the bottom ash handling system.

Thus, under the final CISWI rule, a material burned at a commercial or industrial facility in a combustion unit with heat recovery is not considered a commercial and industrial waste, nor is the combustion unit considered a commercial and industrial solid waste incineration unit for purposes of the CISWI rule.<sup>1</sup>

After promulgation of the final CISWI rule, EPA received a petition for reconsideration of the final rule. The petition argued that the final rule was procedurally defective because EPA had

<sup>1</sup> In addition, EPA adopted a number of specific exemptions and additional definitions in the final CISWI rule, to ensure that the emission limitations did not apply to units that should not be considered commercial and industrial solid waste incineration units. These exemptions and definitions served to identify and exempt: (1) Pathological solid waste incineration units; (2) agricultural solid waste incineration units; (3) municipal solid waste incineration units; (4) hospital, medical and infectious solid waste incineration units; (5) qualifying small power production facilities; (6) qualifying cogeneration facilities; (7) hazardous solid waste incineration units; (8) material recovery units; (9) certain air curtain incinerators; (10) cyclonic barrel burners; (11) rack, part, and drum reclamation units; (12) cement kilns; (13) sewage sludge incinerators; (14) chemical recovery units; and (15) laboratory analysis units.

failed to provide adequate notice and an opportunity to comment on the definitions adopted in the final rulemaking. Additionally, an environmental organization filed a petition for review in the U.S. Court of Appeals for the D.C. Circuit. Also, after promulgation of the final CISWI rule, the D.C. Circuit issued its decision in *Cement Kiln Recycling Coalition v. EPA*, 255 F.3d 855 (D.C. Cir. 2001). In this decision, the Court rejected certain common elements of EPA's MACT methodology. As a result, EPA requested a voluntary remand of the final CISWI rule, in order to address concerns related to the issues that the Court had raised in the *Cement Kiln* decision. Additionally, EPA decided to grant the petition for reconsideration related to the definitional issues, and provide further opportunity for public comment. Today's notice solicits comment on the definitions of solid waste, commercial and industrial waste, and commercial and industrial solid waste incineration unit, and initiates the additional proceedings on these issues to which EPA committed in its grant of the petition for reconsideration. The EPA expects to take further action on these definitions, and respond to any comments received, in conjunction with EPA's response to the voluntary remand.

## II. Discussion

### A. What Is the Significance of EPA's Definitions?

The definitions of solid waste, commercial and industrial waste, and commercial and industrial solid waste incineration unit define the scope of applicability of the final CISWI rule. Since any unit regulated under CAA section 129 can not be subject to any rule developed under section 112 of the CAA, these definitions also help to clarify the scope of applicability of certain other rules that EPA has or will develop for other types of combustion units. In general, those combustion units that are not covered by rules developed under section 129 will be covered by rules developed under section 112. In this case, combustion units that are not covered by the final CISWI rule may be subject to regulation, for example, under EPA's rule for commercial, industrial and institutional boilers and process heaters (boilers rule).<sup>2</sup> That is, many of the combustion

<sup>2</sup> Alternatively, such units might be subject to regulation under any number of other EPA regulations, such as: regulations promulgated pursuant to Section 112(k) to control emissions from industrial, commercial and institutional

Continued

units at commercial and industrial facilities (e.g., boilers or steam generating units, process heaters, furnaces, and incinerators) burn "solid" materials. If the solid materials in question are considered commercial and industrial waste, the units will be regulated as CISWI units under CAA section 129. Conversely, if the materials are not considered commercial and industrial waste (e.g., they are hazardous solid waste, fuel, solid materials burned for chemical or material recovery, etc.), the units will be regulated under CAA section 112 or other statutory authority. Thus, collectively, in the process of responding to the remand of the final CISWI rule, promulgating emissions standards for boilers and process heaters, developing rules for area source boilers, promulgating requirements for electric utility steam generating units, and establishing rules applicable to other combustion sources, EPA will map the regulatory boundaries that identify which units are subject to which requirements.<sup>3</sup>

The process of determining the regulatory dividing line between different rules is not unique to CISWI. Nor does the identification of the scope of one rule, necessarily define the scope of another, or preclude EPA from adjusting the regulatory division in a subsequent rule.

#### *B. What Is EPA's Rationale for Its Definitions?*

Defining solid waste. The EPA adopted a general definition of solid waste in the final CISWI rule. In doing so, EPA concluded that the definition of solid waste located at 40 CFR 261.2, which defines solid waste specifically for purposes of identifying hazardous solid waste, could not serve as a regulatory definition for purposes of identifying nonhazardous solid waste under CAA section 129.<sup>4</sup> Rather, EPA

boilers that are area sources; regulations promulgated pursuant to Section 112(n) for hazardous air pollutants from electric utility steam generating units; and various other regulations developed under Section 112 which cover combustion units burning solid materials to recover their chemical or other material constituents (e.g., black liquor boilers or furnaces at kraft pulp mills covered under the national emission standards for hazardous air pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semicomical Pulp Mills).

<sup>3</sup> We note that finalization of these definitions for purposes of the final CISWI rule is not a prerequisite for EPA to finalize other rules that regulate combustion sources, such as the boiler rule. We will reasonably consider the broader implications of our applicability decisions in each relevant rule.

<sup>4</sup> In fact 40 CFR 261.1(b)(1) states that this definition of solid waste applies only to wastes that

looked to the definition of solid waste in the SWDA (42 U.S.C. 6903), and to other definitions of solid waste that EPA has adopted under the authority of that statute, and that do apply to various types of nonhazardous solid wastes (e.g., 40 CFR 240.100, 243.1010, 246.101, 257.2, and 258.2).

The fact that the language of the individual regulatory definitions of solid waste vary somewhat from definition to definition in the provisions cited above, indicates that the Administrator has not adopted a single authoritative definition to identify nonhazardous solid waste under the SWDA. Rather, the Administrator has adopted a variety of slightly different definitions of nonhazardous solid waste depending on the particular regulatory circumstances.

Since the Administrator has not adopted a single authoritative, and generalizable, definition of nonhazardous solid waste pursuant to the SWDA, it is reasonable for EPA to adopt an appropriate definition of nonhazardous solid waste, for purposes of the final CISWI rule, so long as this definition is not inconsistent with EPA's discretion under the SWDA. Thus, the Administrator may adopt (pursuant to the SWDA, as well as the CAA) a definition of solid waste that serves only to identify nonhazardous solid wastes for purposes of regulating commercial and industrial waste incineration units under CAA section 129. The definition of solid waste on which EPA solicits comment today is consistent with both the SWDA definition and EPA's existing regulatory definitions.

Defining Commercial and Industrial Waste. It is particularly difficult to draw an appropriate distinction between commercial and industrial waste and solid materials that should not be considered commercial and industrial waste, as well as between CISWI units and non-CISWI combustion units.<sup>5</sup> For example, there is general agreement that the coal burned in a coal-fired boiler or steam generating unit is not a solid waste. This is because coal is commonly

are also hazardous for purposes of implementing subtitle C of RCRA.

<sup>5</sup> In many cases, such as municipal solid waste incinerators, and hospital, medical and infectious solid waste incinerators, the identification of the relevant wastes and the relevant units is sufficiently clear that EPA need not address the issue at length in its rule. Indeed, CAA section 129 provides specific guidance for EPA's definitions of municipal waste and medical waste, as well as municipal waste incineration units. See section 129(g)(5) and (6) of the CAA. In addition, there is broad and general agreement between EPA, the regulated community, and other stakeholders regarding what materials are municipal waste and hospital, medical and infectious waste, and which combustion units belong in the respective regulatory categories.

thought of as a fuel. Coal is considered a fuel because it is customarily burned to recover energy (i.e., heat) for some useful purpose such as to heat water or generate steam. However, there is no such general agreement, for example, about a solid material such as bagasse when it is burned in a boiler at a sugar plant to produce the heat needed to refine sugar from sugar cane.<sup>6</sup> In the context of the final CISWI rule, the question is whether the bagasse is a commercial and industrial waste, and whether the combustion unit burning the bagasse is subject to the emission limits of the final CISWI rule. Some consider the bagasse a "by-product" or "residual material" left over from the production process, and therefore a solid waste. Others do not consider the bagasse a solid waste, but a "co-product" or "additional material" resulting from the production process.

From EPA's point of view, the origin of a material that is burned in a unit at a commercial or industrial facility is less important than how that material is burned. In the example, bagasse is burned to generate the heat necessary to evaporate the water in the sugar cane juice. If the bagasse were not burned to generate this heat, then the facility would instead burn another material such as coal. Like the coal, the bagasse is burned for a useful purpose—to heat the sugar cane juice and concentrate the sugar. Therefore, EPA feels that it is reasonable to consider the bagasse in this second example—as the coal in the first example—to be a solid fuel and distinct from commercial and industrial waste. Thus, for purposes of distinguishing commercial and industrial waste from solid fuel, its status is determined by its use, as well as by its origin.

On the other hand, if the bagasse were burned in a combustion unit without heat recovery, its combustion would serve no useful purpose other than to effectuate destruction or disposal of an unwanted material. The EPA would then consider it appropriate to identify the bagasse as commercial or industrial waste, and regulate the combustion unit under CAA section 129 as a CISWI unit. Similarly, if a material (that is not hazardous waste) is burned in a combustion unit at a commercial or industrial facility with heat recovery, for reasons that do not include the recovery

<sup>6</sup> Bagasse is a product of sugar cane processing. Sugar cane is harvested and crushed at the plant to extract the juice present in the sugar cane. The crushed sugar cane is referred to as bagasse. To produce raw sugar from the sugar cane juice, the juice is heated to evaporate the water present and concentrate the sugar. This heating requires energy which, in turn, is supplied by burning the bagasse.

of heat for useful purposes, that material would be commercial or industrial waste and the unit would be a CISWI unit.

Thus, in general, if a solid material (which is not a hazardous solid waste) is burned with heat recovery at a commercial or industrial facility to generate heat for a useful purpose, EPA feels that it is appropriate to consider that material not to be commercial or industrial waste, and not to regulate the device as a CISWI unit under CAA section 129.<sup>7</sup>

**Statutory basis for EPA's definitions.** The CAA requires regulation of commercial and industrial solid waste incinerators under CAA section 129, and regulation of non-CISWI commercial and industrial combustion units, such as boilers and process heaters, under CAA section 112. In order to effectively implement the statute, EPA must decide how to distinguish between these source categories. While EPA is not without some statutory guidance in determining where to draw the regulatory dividing line, there is considerable ambiguity regarding how to group certain categories of sources.

The CAA broadly identifies "solid waste incineration unit" for purposes of CAA section 129 as follows:

The term "solid waste incineration unit" means 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 SWDA [42 U.S.C. 6925]. 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,

<sup>7</sup> As pointed out earlier, the regulatory dividing line does not determine whether a combustion unit is regulated or unregulated, but rather, whether it is regulated under section 129 or under section 112.

yard wastes and clean lumber and that such air curtain incinerators comply with opacity limitations to be established by the Administrator by rule.

This language suggests that EPA has considerable discretion to regulate a variety of sources as solid waste incinerators. As outlined earlier, however, this definition also specifically identifies several types of combustion units that should not be treated as "solid waste incineration units" under Section 129, including combustion units burning hazardous solid waste, materials recovery facilities, certain small power production facilities, certain cogeneration facilities, and certain air curtain incinerators. However, as explained below, this definition on its own does little to identify where EPA should draw the regulatory dividing line between CISWI units and other combustion units.

The CAA identifies the term "solid waste" as having the same meaning as established by the Administrator under the SWDA. However, as discussed earlier, EPA's only comprehensive definition of that term under the SWDA specifically identifies only hazardous solid waste, and is not useful for purposes of identifying nonhazardous solid waste. Therefore, in the final CISWI rule, EPA defined "solid waste" in a manner that is consistent with both the SWDA itself, and with general definitions adopted by the Administrator under various provisions of the SWDA. Again, this definition provides EPA with broad discretion for identifying units that burn solid wastes, but it is not determinative of the scope of applicability of EPA's final CISWI regulations.

While the CAA specifically addresses the definitions of solid waste and solid waste incineration unit, CAA section 129 does not require regulations that apply to every device that might be considered a solid waste incineration unit.<sup>8</sup> Rather, section 129(a) directs EPA to regulate solid waste incineration units that burn several particular categories of solid waste. These include municipal waste, hospital, medical and infectious waste, commercial or

<sup>8</sup> Significantly, unlike section 112(d), section 129(a) does not direct EPA to establish a list for regulation of all solid waste combustion sources that emit hazardous air pollutants (HAP). Rather, the 1990 amendments identified the general categories of solid waste incineration units that EPA is to regulate, and set schedules for EPA to promulgate appropriate regulations for units within these categories—municipal waste combustors (MWC) with a capacity greater than 250 tons per day within 12 months of enactment; MWC with a capacity equal to or less than 250 tons per day and hospital, medical and infectious waste incinerators (HMIWI) within 24 months; and CISWI within 48 months. Section 129(a)(1) of the CAA.

industrial waste, and other solid waste.<sup>9</sup> The statute specifically defines "municipal waste," (in section 129(g)(5)),<sup>10</sup> and identifies "medical waste" as having the same meaning as established by the Administrator under the SWDA.<sup>11</sup> However, the CAA does not define the other categories of solid waste for regulation, including commercial or industrial waste.<sup>12</sup> Inherent in EPA's implementation of this section must be the discretion to reasonably define what constitutes each un-defined type of solid waste. Thus, the CAA does not specifically foreclose EPA's ability to reasonably define the scope of its regulations applicable to commercial and industrial combustion units.

Thus, EPA may define commercial or industrial waste in order to identify which units are commercial and industrial solid waste incineration units subject to regulation under section 129 (as opposed to units regulated under section 112 or other authority). In doing so, EPA must determine when to treat combustion units at commercial and industrial facilities like incinerators, and when to treat them like non-incineration combustion units. For reasons discussed in detail below, EPA has determined that for purposes of CISWI units, the critical consideration in determining whether the unit is burning commercial or industrial waste is the primary function of the combustion unit; and the primary indicator of function is whether or not a unit is designed and operated to recover heat for a useful purpose.

That is, if the unit located at a commercial or industrial facility combusts material without heat

<sup>9</sup> Section 129 also directs EPA to establish regulation for "other categories of solid waste incineration units," although the CAA neither sets a time frame for such regulations nor identifies which "other categories" EPA should regulate. "Not later than 18 months after the date of enactment \* \* \* the Administrator shall publish a schedule for the promulgation of standards \* \* \* applicable to other categories of solid waste incineration units." Section 129(a)(1)(E) of the CAA.

<sup>10</sup> This definition itself includes some limitations, in that "(A) the term does not include industrial process wastes or medical wastes that are segregated from such other wastes; and (B) an incineration unit shall not be considered to be combustible municipal waste \* \* \* if it combusts a fuel feed stream, 30 percent or less of the weight of which is comprised, in aggregate, of municipal waste."

<sup>11</sup> This definition of "medical/infectious waste" is contained in 40 CFR 60.51c, the hospital/medical/infectious waste rules established under section 129.

<sup>12</sup> Significantly, the statute does not direct EPA to regulate all solid waste incineration units at commercial or industrial facilities, but rather to regulate those "solid waste incineration units combustible commercial or industrial waste." See CAS section 129(a)(1).

recovery (functions primarily as an incineration unit), then the material burned in that unit is commercial or industrial waste. Similarly, if a material is burned in a unit at a commercial or industrial facility for reasons that do not include the recovery of heat for useful purposes, that material is commercial or industrial waste and the unit is a CISWI unit. However, if the unit combusts material with heat recovery for a useful purpose, then the material burned is not commercial and industrial waste, and the combustion unit would not be subject to the final CISWI rule.

The EPA's decision in this regard is reflected in its definition of commercial and industrial waste in the final CISWI rule. By specifically defining CISWI units to include only units that behave primarily like incinerators, EPA can appropriately identify the scope of regulation of combustion units at commercial and industrial facilities under section 129 of the CAA.

Conceptually, as outlined above, EPA believes that it is reasonable to define commercial or industrial waste, for purposes of identifying commercial and industrial solid waste incineration units subject to regulation under section 129 of the CAA, as follows: solid materials burned at commercial and industrial facilities are commercial or industrial waste unless they are (1) hazardous solid wastes, (2) subject to one of the exemptions included in section 129 of the CAA (e.g., material recovery facility, qualifying small power production facility), or (3) burned with heat recovery and for a useful purpose. Fundamentally, EPA believes this definition is effective, straightforward, and easy to implement, and that it is a reasonable approach for distinguishing between commercial or industrial waste and other solid materials, and between commercial and industrial solid waste incineration units and other combustion units.

Since promulgation of the CISWI rule and proposal of the boiler rule, however, EPA has discovered a "gap" in coverage of combustion units between rules developed under section 129 and rules developed under section 112. As a result, EPA is requesting comment on definitions to close this gap.

Specifically, as promulgated, the final CISWI rules cover combustion units at commercial and industrial sites that burn solid materials without heat recovery. As proposed, the boiler rule covers combustion units at commercial and industrial sites that burn solid materials and recover heat in the combustion firebox. Under this approach, combustion units at commercial and industrial sites that

burn solid materials and do not recover heat in the combustion firebox, but do recover waste heat from the hot combustion gases following the combustion firebox, would not to be covered by either the final CISWI rule or the boiler rule. In addition, EPA believes it is not appropriate to regulate such units as boilers or process heaters.<sup>13</sup> This is an oversight EPA intends to correct, as follows: if a material is burned in a unit at a commercial or industrial facility which is followed by external waste heat recovery only (i.e., no heat recovery in the combustion firebox), that material is commercial or industrial waste and the unit is a CISWI unit.

Incineration units are designed to discard materials by burning them at high temperatures and leaving as little residue as possible. Incineration units do not have heat recovery in the combustion firebox, but they may be followed by waste heat recovery units. Unlike a boiler (which is specifically designed to recover the maximum amount of heat from a material's combustion), waste heat recovery units are designed to cool the exhaust gas stream, and/or to recover, indirectly, the useful heat remaining in the exhaust gas from a combustion unit that has some other primary purpose (such as an incineration unit, combustion turbine or internal combustion engine). The presence of a waste heat recovery unit on the exhaust gas does not change the fact that the unit combusting the material is primarily an incineration unit. Thus, a combustion unit with no heat recovery in the combustion firebox is still considered an incineration unit (i.e., used primarily to dispose of solid waste), whether the incineration unit is followed by a waste heat recovery unit or not. Such incineration units just happen to have an external device (the waste heat recovery unit) that is recovering some of the waste heat from the incineration unit's exhaust gas.

To address this regulatory "gap," the term "commercial or industrial waste" could be expanded to include materials that are combusted with only waste heat recovery (i.e., no heat recovery in the combustion firebox), as well as materials that are combusted with no heat recovery.

This approach would expand the scope of coverage of the final CISWI rule by including combustion units located at commercial and industrial sites burning solid materials with no heat recovery in the combustion firebox, but

with external heat recovery units (i.e., incineration units with waste heat recovery units).

### III. Request for Comment

We request public comment on the definitions described below, including "solid waste," "commercial and industrial waste," and "commercial and industrial solid waste incinerator," and on the appropriateness of these definitions for identifying units that will be regulated as CISWI units under CAA section 129. This request for public comment is consistent with EPA's commitment to engage in further proceedings regarding these definitions.

*Solid waste* means 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, agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1342), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2014).

*Commercial or industrial waste* means solid waste (as defined in this subpart) combusted for reasons that do not include the recovery of heat for a useful purpose, or combusted without heat recovery or with only waste heat recovery (i.e., no heat recovery in the combustion firebox), in an enclosed unit using controlled flame combustion that is a distinct operating unit of any commercial or industrial facility (including field-erected, modular, and custom built incineration units operating with starved or excess air); or solid waste combusted in an air curtain incinerator that is a distinct operating unit of any commercial or industrial facility.

*Commercial and industrial solid waste incineration (CISWI) unit* means any combustion unit that combusts commercial or industrial waste (as defined in this subpart), that is a distinct operating unit of any commercial or industrial facility (including field-erected, modular, and custom built incineration units operating with starved or excess air), and any air curtain incinerator that is a distinct operating unit of any commercial or industrial facility that does not comply with the opacity limits

<sup>13</sup>These units are often referred to as incinerators with waste heat recovery units or incinerators with waste heat boilers.

under this subpart applicable to air curtain incinerators burning commercial or industrial waste. While not all CISWI units will include all of the following components, a CISWI unit includes, but is not limited to, the commercial or industrial solid waste feed system, grate system, flue gas system, waste heat recovery equipment, if any, and bottom ash system. The CISWI unit does not include air pollution control equipment or the stack. The CISWI unit boundary starts at the commercial or industrial waste hopper (if applicable) and extends through two areas: (1) The combustion unit flue gas system, which ends immediately after the last combustion chamber or after the waste heat recovery equipment, if any; and (2) the combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. The CISWI unit includes all ash handling systems connected to the bottom ash handling system. A CISWI unit does not include any of the fifteen types of units described in section 60.2555 of this subpart, nor does it include any combustion turbine or reciprocating internal combustion engine.

*Waste heat recovery* means the process of recovering heat from the combustion flue gases by convective heat transfer only.

#### IV. Future Action

Our expectation is that we will take final action on the definitions discussed and issues addressed in today's notice when we take final action in response to the voluntary remand of the final CISWI rule.

Dated: February 10, 2004.

**Jeffrey R. Holmstead,**

Assistant Administrator, Office of Air & Radiation.

[FR Doc. 04-3366 Filed 2-13-04; 8:45 am]

BILLING CODE 6560-50-P

#### ENVIRONMENTAL PROTECTION AGENCY

#### 40 CFR Part 63

[SC-112L-2004-1-FRL-7623-9]

#### Approval of Section 112(l) Authority for Hazardous Air Pollutants; Equivalency by Permit Provisions; National Emission Standards for Hazardous Air Pollutants From the Pulp and Paper Industry; State of South Carolina

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** Pursuant to section 112(l) of the Clean Air Act (CAA), South Carolina Department of Health and Environmental Control (SC DHEC) requested approval to implement and enforce State permit terms and conditions that substitute for the National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry. In the Rules section of this **Federal Register**, EPA is granting SC DHEC the authority to implement and enforce alternative requirements in the form of title V permit terms and conditions after EPA has approved the state's alternative requirements. A detailed rationale for this approval is set forth in the direct final rule. If no significant, material, and adverse comments are received in response to this rule, no further activity is contemplated. If EPA receives adverse comments, the direct final rule will be withdrawn and all public comments received will be addressed in a subsequent final rule based on this rule. The EPA will not institute a second comment period on this document. Any parties interested in commenting on this document should do so at this time.

**DATES:** Written comments must be received on or before March 18, 2004.

**ADDRESSES:** Comments may be submitted by mail to: Lee Page, Air Toxics Assessment and Implementation Section, Air Toxics and Monitoring Branch, Air, Pesticides and Toxics Management Division; U.S. Environmental Protection Agency Region 4; 61 Forsyth Street, SW., Atlanta, Georgia 30303-8960. Comments may also be submitted electronically, or through hand delivery/courier. Please follow the detailed instructions described in the direct final rule, **SUPPLEMENTARY INFORMATION** section [Part (l)(B)(1)(i) through (iii)] which is published in the Rules Section of this **Federal Register**.

**FOR FURTHER INFORMATION CONTACT:** Lee Page, Air Toxics Assessment and Implementation Section, Air Toxics and Monitoring Branch, Air, Pesticides and Toxics Management Division, Region 4, U.S. Environmental Protection Agency, 61 Forsyth Street, SW., Atlanta, Georgia 30303-8960. The telephone number is (404) 562-9141. Mr. Page can also be reached via electronic mail at [page.lee@epa.gov](mailto:page.lee@epa.gov).

**SUPPLEMENTARY INFORMATION:** For additional information see the direct final rule which is published in the Rules section of this **Federal Register**.

Dated: February 5, 2004.

**J.I. Palmer, Jr.,**

Regional Administrator, Region 4.

[FR Doc. 04-3369 Filed 2-13-04; 8:45 am]

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#### FEDERAL COMMUNICATIONS COMMISSION

#### 47 CFR Parts 2, 15 and 90

[ET Docket No. 03-108 and ET Docket No. 00-47; FCC 03-322]

#### Cognitive Radio Technologies and Software Defined Radios

**AGENCY:** Federal Communications Commission.

**ACTION:** Proposed rule.

**SUMMARY:** In this document we are seeking to facilitate opportunities for flexible, efficient, and reliable spectrum use employing cognitive radio technologies. We are seeking comment generally on how we should modify our rules to enable more effective use of cognitive radio technologies, including potential applications across a variety of scenarios involving both licensed spectrum and unlicensed devices. By initiating this proceeding, we recognize the importance of new cognitive radio technologies, which are likely to become more prevalent over the next few years and which hold tremendous promise in helping to facilitate more effective and efficient access to spectrum. We seek to ensure that our rules and policies do not inadvertently hinder development and deployment of such technologies, but instead enable a full realization of their potential benefits.

**DATES:** Comments must be filed on or before May 3, 2004, and reply comments must be filed on or before June 1, 2004.

#### FOR FURTHER INFORMATION CONTACT:

Hugh Van Tuyl, Office of Engineering and Technology, (202) 418-7506, e-mail: [HughVanTuyl@fcc.gov](mailto:HughVanTuyl@fcc.gov), or James Miller, (202) 418-7351 TTY (202) 418-2989, e-mail: [jmiller@fcc.gov](mailto:jmiller@fcc.gov).

**SUPPLEMENTARY INFORMATION:** This is a summary of the Commission's *Notice of Proposed Rule Making and Order*, ET Docket No. 03-108 and ET Docket No. 00-47, FCC 03-322, adopted December 17, 2003 and released December 30, 2003. The full text of this document is available for inspection and copying during normal business hours in the FCC Reference Center (Room CY-A257), 445 12th Street, SW., Washington, DC 20554. The complete text of this document also may be purchased from the Commission's copy contractor,