From: Koerner, Jeff
Sent: Monday, April 11, 2011 4:05 PM
To: Endsley, Carter; Felton-Smith, Rita; Hoefert, Lee; Rustin, Jeff; Sarasua, Armando; Zhang-Torres; C.Bittle; Gary Robbins (Pinellas); J. Kasper; Lee; muthim; Robinson; S.cameron; Tallam, Laxmana (Palm Beach County)
Cc: Vielhauer, Trina
Subject: RE: Air Curtain Incinerators - Stationary Source Permitting

All:

At the last permitting teleconference, we discussed the permitting of ACIs. This email represents my opinion of the historic permitting of stationary ACIs in Florida and is intended to provide interim guidance for consistency throughout the state. As described below, this opinion may change if we get a more formal interpretation from EPA on the recent final rules for Commercial and Industrial Solid Waste Incineration Units (CISWI). This guidance does not apply to portable ACIs used for temporary operations such as land clearing and emergency storm debris disposal. Such units may continue to operate under the terms of the conditional exemption from permitting at Rule 62-210.300(3)(a)26., F.A.C.

Historically, the Division provided written guidance indicating that well-operated ACIs with an annual charging capacity of no more than 100,000 tons per year of clean dry woody materials were not considered major sources (< 100 tons per year). Early guidance was specific to particulate matter emissions, but subsequent guidance was issued for carbon monoxide and nitrogen oxides as well. The Department codified this guidance by including a category for ACIs in Rule 62-297.401, F.A.C. Subsequently, changes were made to this rule to make it consistent with requirements in the CISIWI and Small Municipal Waste Combustor (MWC) rules. During these changes, the annual charging capacity of 100,000 tons per year was removed.

The Division is not aware of any definitive emissions factors from ACIs. Section 2.1.7.2 of AP-42 identifies emissions factors for NOx, PM and SO2 from ACIs with refractory walls; however, these factors are given a “D” rating. The references for these factors primarily come from information gathered in the 1970’s and 1980’s. It is difficult to test an ACI because of several issues:

- ACIs are a “line source” of emissions with no true stack.
- The design of the ACI is to project a curtain across the unit to capture and re-burn the combustion gases. Test equipment may affect the process.
- The woody materials are not always evenly distributed across the line source.
- Depending on the materials being burned and the distribution of the materials, emissions may vary widely along the line source.
- Emissions testing conducted by manufacturers do not specify the methodology used and the data have not been peer reviewed.

Based on your responses to my questions on this issue, the most common permitted ACI appears to have a charging rate of 10 to 15 tons per hour. Even at 20 tons per hour, the maximum annual charging rate would be 87,600 tons per year when assuming 12 hours of operation per day on every day of the year. This is less than the annual amount identified in the Division’s original guidance and rule.

For these reasons, the Division does not believe there is any reason to change its long-standing position on permitting ACIs at this time: ACIs with a design charging capacity of 20 tons per hour or less of clean woody materials are not considered major sources (< 100 tons per year of each pollutant). Permits should identify the maximum hourly charging rate indicated by the vendor and include applicable requirements from the state and federal regulations. A permit for a single ACI or combination of ACIs with a charging capacity of 20 tons per hour or less should not be considered a FESOP. So, the permitting for a stationary source ACI would be an initial AC permit and state AO permit with no requirement to submit an AOR.

The Division previously notified EPA of its interpretation that an ACI burning only clean woody materials was subject only to the opacity standards of the CISWI or Small MWC rules, and was considered exempt from the Section 129 definition of a solid waste incinerator. This is specifically stated in Section 2.2.7.2 of AP-42 (October 1996), "Trench combustors burning wood wastes, yard wastes, and clean lumber are exempt from Section 129, provided they comply with opacity limitations established by the Administrator." This meant that a Title V permit was not required.

On February 21, 2011, EPA passed final rules for CISWIs, which includes requirements for ACIs (NSPS Subpart CCCC and EG Subpart DDDD). In these revisions, EPA seems to suggest that all ACIs must get Title V permits; however, §60.2020(i) specifically exempts ACIs that burn a 100% mixture of only wood waste, clean lumber, and/or yard waste. In addition, the exemption specifically states that such units are only required to meet the provisions for ACIs under §§60.2245 through 60.2260. Note that this list of applicable requirements does not include §60.2242, which is the requirement to obtain a Title V air permit. See the attached file for additional details. The "Emissions Guidelines" (EG Subpart DDDD) would be interpreted similarly.

This email was reviewed internally by staff in permitting, compliance and rulemaking. We will continue our discussions on this issue with EPA and will let you know as soon as we can if this opinion changes.

Sincerely,

Jeffery F. Koerner, Program Administrator

New Source Review Section, Bureau of Air Regulation

Division of Air Resource Management

Phone: 850-717-9083 / Fax: 850-717-9001

Email: Jeff.Koerner@dep.state.fl.us

Web: http://www.dep.state.fl.us/air/

Subpart CCCC of 40 CFR Part 60, Standards of Performance for New Stationary Sources: Commercial and Industrial Solid Waste Incineration Units; Final Rule

§ 60.2010 Does this subpart apply to my incineration unit?

Yes, if your incineration unit meets all the requirements specified in paragraphs (a) through (c) of this section.

(a) Your incineration unit is a new incineration unit as defined in §60.2015.

(b) Your incineration unit is a CISWI unit as defined in §60.2265.

(c) Your incineration unit is not exempt under §60.2020.

{Comment: So, if my incineration unit ***is exempt*** under §60.2020, then this Subpart ***does not apply***. Go to **§60.2020**.}

§ 60.2020 What combustion units are exempt from this subpart?

This subpart exempts the types of units described in paragraphs (a), (c) through (i) and (n) of this section, but some units are required to provide notifications. Air curtain incinerators are exempt from the requirements in this subpart *except for the provisions in §§60.2242, 60.2250, and 60.2260*.

(i) *Air curtain incinerators*. Air curtain incinerators ***that burn only the materials listed in paragraphs (i)(1) through (3)*** of this section are ***only required to meet the requirements under "Air Curtain Incinerators" (§§60.2245 through 60.2260***).

(1) 100 percent wood waste.

(2) 100 percent clean lumber.

(3) 100 percent mixture of only wood waste, clean lumber, and/or yard waste.

{Comment: The opening paragraph broadly states that types of units identified in paragraphs (a), (c) through (i) and (n) are ***exempt from*** the Subpart ***except*** for the provisions in **§§60.2242, 60.2250,** and **60.2260**. **§60.2242** is the requirement to get a Title V air operation permit. **HOWEVER**, **§ 60.2020(i)** more narrowly defines the exemption criteria for ACIs AND the applicable requirements (**§§60.2245 through 60.2260**). Notice that this list of applicable requirements includes **60.2250** and **60.2260**, which are also stated in the operating paragraph to the exemption. Also notice that **§60.2242** (Title V requirement) is **NOT** included as an applicable provision for ACIs meeting the exemption criteria. Since EPA is carefully identifying the applicable requirements for ACIs that meet the criteria in **§ 60.2020(i)**, then **§60.2242** is not applicable to these units.}

§ 60.2242 Am I required to apply for and obtain a Title V operating permit for my unit?

Yes. Each CISWI unit and air curtain incinerator subject to standards under this subpart must operate pursuant to a permit issued under Section 129(e) and Title V of the Clean Air Act.

{Comment: So, air curtain incinerators that meet the requirements of 40 CFR 60.2020(i)(1)-(3) ***never get here***.}

§60.2245 What is an air curtain incinerator?

(a) An air curtain incinerator operates by forcefully projecting a curtain of air across an open chamber or open pit in which combustion occurs. Incinerators of this type can be constructed above or below ground and with or without refractory walls and floor. (Air curtain incinerators are not to be confused with conventional combustion devices with enclosed fireboxes and controlled air technology such as mass burn, modular, and fluidized bed combustors.)

(b) Air curtain incinerators that burn only the materials listed in paragraphs (b)(1) through (3) of this section are only required to meet the requirements under "Air Curtain Incinerators" (§§60.2245 through 60.2260).

(1) 100 percent wood waste.

(2) 100 percent clean lumber.

(3) 100 percent mixture of only wood waste, clean lumber, and/or yard waste.

§60.2250 What are the emission limitations for air curtain incinerators?

Within 60 days after your air curtain incinerator reaches the charge rate at which it will operate, but no later than 180 days after its initial startup, you must meet the two limitations specified in paragraphs (a) and (b) of this section.

(a) Maintain opacity to less than or equal to 10 percent opacity (as determined by the average of three 1-hour blocks consisting of ten 6-minute average opacity values), except as described in paragraph (b) of this section.

(b) Maintain opacity to less than or equal to 35 percent opacity (as determined by the average of three 1-hour blocks consisting of ten 6-minute average opacity values) during the startup period that is within the first 30 minutes of operation.

§ 60.2060 When must I submit my waste management plan?

You must submit a waste management plan prior to commencing construction