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REGION III  
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Woodbridge, VA 22193

Air Permit

Dear Mr. Godar:

Thank you for your April 28, 1997 letter regarding the applicability of Title V requirements for municipal solid waste (MSW) landfills under 40 CFR part 60, subpart WWW new source performance standards (NSPS).

The questions raised in your letter are similar to ones raised in a November 1996 letter by the Maryland Air and Radiation Management Administration (MARMA) to EPA. Because of the relevance of MARMA's questions and EPA's responses to them, we have enclosed a copy of our response letter, including the enclosures, for your use and information. The EPA letter to MARMA addresses questions relating to classifying MSW landfill emissions as non-fugitive emissions, the calculation of potential emissions at a landfill, and determining whether a landfill is a major source under title V of the Clean Air Act (CAA). As with the MARMA letter, your letter raises complex questions that involve ongoing EPA Headquarters policy decisions. For this reason, we have not been able to provide you with a more timely response.

As you may know, since the Summer of 1996, EPA has been involved in litigation over the requirements of the MSW landfill rule. On November 13, 1997, in accordance with section 113(g) of the CAA, EPA issued a notice in the Federal Register (62 FR 60898) of a proposed settlement in National Solid Wastes Management Association v. Browner, et al., No. 96-1152 (D.C. Cir). It is important to note that the proposed settlement does not vacate or void the existing landfill rule. Accordingly, the currently promulgated MSW landfill rule, the Title V rule at 40 CFR part 70, EPA Region 3's letter to MARMA, and other EPA guidance documents serve as a basis for this response. This response has been coordinated with staff in the Office of Air Quality Planning and Standards, the Office of Enforcement and Compliance Assurance, and the Office of General Counsel in order to help assure completeness and accuracy. Given below is our response to your questions, and, as necessary, comments on your "given" statements preceding each question in your letter.

## **Question #1**

### **Given Department of Environmental Quality (DEQ) Statements/EPA Comments:**

*Statement # 1.* Minor NSPS sources may be deferred from initial part 70 permitting. (Virginia has adopted this option).

*EPA Comment:* Certain nonmajor sources, i.e., area sources, have been deferred from initial part 70 permitting; others have not.

First, section 502(a) of the CAA requires sources, including nonmajor sources, that are subject to standards or requirements under section 111 or 112 of the CAA to obtain Title V permits. If a promulgated section 111 or 112 standard is silent on whether nonmajor sources under the standard are to be permitted, then the nonmajor sources are by default required to get Title V permits. However, it is important to note two exceptions to this statement:

- 1) Nonmajor sources subject to section 111 and 112 standards which were promulgated **prior** to July 21, 1992 have been deferred from permitting until EPA completes a rulemaking to determine how the Title V program should be structured for nonmajor sources and the appropriateness of any permanent exemptions [section 70.3(b)(1)]. (The MSW landfill rule was promulgated on March 12, 1996 and is therefore not affected by this part 70 provision.)
- 2) Through rulemaking actions (proposed December 13, 1995; promulgated June 3, 1996), EPA decided to defer or exempt nonmajor sources subject to certain section 112 standards promulgated after July 21, 1992 from Title V permitting. These rulemaking actions did not, however, address NSPS standards, including the landfill rule.

Nevertheless, nonmajor MSW landfills which have a design capacity *less than* 2.5 million megagrams or 2.5 million cubic meters have been exempted from the requirement to apply for a Title V permit as a result of 40 CFR part 60, subparts Cc and WWW. However, if these landfills are subject to Title V for other reasons, they are still required to obtain a Title V permit.

Second, it is important to remember that an MSW landfill of any size could be considered a major source under the CAA. Major source status is based on what a source emits or has the potential to emit. For part 70 permitting purposes, a landfill could be classified as a major source under one or more of three major source definitions in Title V: (1) section 112, (2) section 302, or (3) part D of Title I.

*Statement # 2.* Subpart WWW states that all MSW landfills with a design capacity greater than 2.5 million megagrams are subject to part 70 permitting (section 60.752(b)).

*EPA Comment:* We agree. It should be noted that section 60.752(b) also stipulates a 2.5 million cubic meters applicability threshold. A MSW landfill with a design capacity *greater than or equal to* either of these thresholds is subject to part 70 permitting.

*Statement # 3.* A landfill that has a design capacity greater than 2.5 million megagrams may be a minor source. (Preamble to final subpart WWW).

*EPA Comment:* Assuming that a minor source is equivalent to a nonmajor source, this statement is true. However, section 60.752(b) states that the owner or operator of an MSW landfill subject to subpart WWW with a design capacity *greater than or equal to* 2.5 million megagrams or 2.5 million cubic meters is subject to part 70 permitting requirements; this subpart WWW requirement is independent of any potential to emit requirement.

*Statement # 4.* The regulated pollutant for landfills is landfill gas, measured as NMOC. Landfill gas contains VOCs and HAPs. Emissions of NO<sub>x</sub>, SO<sub>2</sub>, PM, etc., from the control device are “secondary emissions” (preamble to final subpart WWW) which are not included in determining major source status ((draft new source review (NSR) workbook)).

*EPA Comment:* In regard to your first statement, it is important to note that a landfill can be a major source for one or more pollutants, of which NMOC is but one. Under the section 112 major source definition, the pollutants of concern are listed in section 112(b) of the Act and codified in 42 U.S.C. 7412(b)(1). (The codified list contains any modifications to the 112(b) list.) Under section 302 and part D of Title I, a landfill could be a major source for any of the non-HAP pollutants listed in the proposed NSR rule of July 23, 1996 (61 FR 38250, 38310).

The third sentence of your statement is **not** correct. For NSR and Title V applicability purposes, EPA classifies emissions as being either fugitive or non-fugitive, whether or not they are controlled or uncontrolled. There is no definition of “secondary emissions” in 40 CFR part 70, the General Provisions for part 60, or subpart WWW of part 60. In the context of NSR requirements, secondary emissions are defined as emissions which would occur as a result of the construction or operation of a major stationary source or major modification, but **do not come from the major stationary source or major modification itself**. [Emphasis added.] (See for example the definition of secondary emissions in 40 CFR 52.21.) Therefore, emissions of NO<sub>x</sub>, SO<sub>2</sub>, PM, etc. which results from the application of control devices to the source itself (in this case a landfill) are not considered secondary emissions, and must be counted in major source determinations and are subject to all applicable requirements.

*Statement # 5.* Until an existing landfill installs a collection and control system, the emissions are fugitive and do not count towards determining major status for NSR or part 70 permitting. (John Seitz October 21, 1994 guidance pertaining to existing landfills.)

*EPA Comment:* For any designated facility (i.e., existing landfill) under subpart Cc, the MSW Landfill Emission Guidelines, the given statement is **not** correct. Emissions which are **reasonably collectable** are non-fugitive emissions and must be counted in determining the potential to emit for a landfill. **What is considered reasonably collectable is based on what similar landfills are collecting regardless of whether the landfill in question actually captures emissions or not.** For purposes of the NSR program, EPA has concluded that it is reasonable to assume that landfill gas can be collected at landfills constructed, or expanded

beyond their currently-permitted capacity<sup>1</sup>, on or after October 21, 1994. Please see the enclosed October 21, 1994 memo from John Seitz, Director, Office of Air Quality Planning and Standards, entitled "Classification of Emissions from Landfills for NSR Applicability Purposes." For landfills constructed or expanded prior to October 21, 1994, if the applicability determinations made for these landfills were correct for that time, those decisions will not be revisited.

The criteria established in NSR for determining which emissions are non-fugitive are also applicable for two of the major source definitions under Title V, i.e., the section 302 and part D of Title I major source definitions. As a result, any Title V major source determinations made under these two definitions on or after October 21, 1994 must consider any reasonably collectable emissions as non-fugitive emissions and must, as a result, count these emissions toward determining a landfill's major source status. As of October 21, 1994, there were no permitting authorities which had received final approval of their Title V programs. As a result, unless permitting authorities were requesting Title V applications from sources prior to October 21, 1994, all MSW landfill owners or operators must count their reasonably collectable emissions toward determining major source status under these two Title V major source definitions.

It is important to clarify that under the section 112 major source definition in Title V, all hazardous air pollutants, whether the emissions are considered fugitive or non-fugitive, must be counted toward determining whether a source is a major source. Please see the enclosed MARMA letter for more discussion on the major source definitions under Title V.

*Statement # 6.* Without a gas collection system, it is not possible, from a technical standpoint, to determine whether or not a landfill is major for HAP or VOC emissions.

*EPA Comment:* This statement is **not** correct. It is technically possible to estimate the emissions from a landfill source where a gas collection system is not in place, just as emissions can be estimated for other sources which do not have systems to collect emissions. For determining whether a landfill is a major source, EPA encourages site-specific source testing of landfill gas to determine its constituent pollutants and their concentrations. Use of actual emissions data reduces the uncertainties associated with using the emission factor concentrations provided in EPA's AP-42, Compilation of Air Pollutant Emission Factors.

In the absence of actual emissions data, however, the preferred method for estimating MSW landfill emissions for major source determinations is use of EPA's AP-42. Table 2.4-1 in AP-42 contains a list of numerous HAP and VOC emissions concentrations for uncontrolled landfills. However, it is important to note that sources need to consider all pollutants for which they could be considered a major source, some of which may not be included in Table 2.4-1. (See EPA's comment on Statement #4.) Emission estimating procedures, other than AP-42, may be acceptable, as determined by the permitting authority.

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<sup>1</sup> The currently-permitted capacity of a landfill is in reference to whatever permit the landfill owner or operator holds at the time that the landfill begins to expand, e.g., air permit or solid waste permit.

An updated version of AP-42 landfill emission factors was placed on the EPA website on September 30, 1997 and will be published by the Government Printing Office in paper in Supplement D to the 5th Edition on or about January 1999. The updated emission factors can now be accessed at the following website address: <http://www.epa.gov/ttn/chief/ap42etc.html>. Emission factors relative to landfills are located in chapter 2, section 4. A copy of these revised AP-42 emission factors is enclosed. It is important to emphasize that in order to appropriately apply various emission factors to landfills, a permitting authority should thoroughly review the background document for landfills. This document can be accessed at the following website address: <http://www.epa.gov/ttn/chief/ap42back.html>.

Finally, it is important to emphasize that major source status under the CAA is based on what a source emits or **has the potential to emit**.

### ***DEQ Question #1***

When does an NSPS subpart WWW landfill become a major source?

*EPA Response:* A landfill becomes a major source when it emits or has the potential to emit major amounts of any 112(b) pollutant or any pollutant of concern under section 302 or part D of Title I. (See EPA's comment on Statement #4.) NMOC became pollutants to consider in major source determinations as a result of the promulgation of the NSPS for landfills on March 12, 1996. This question is also addressed on pages one and two of the enclosed MARMA letter.

### **Question # 2**

Given DEQ Statements/EPA Comment:

*Statement # 1.* A landfill which is subject to NSPS subpart WWW is preparing to install a gas collection and control system.

*Statement # 2.* The gas collection system and the emissions control system (landfill gas energy recovery) will be owned and operated by separate third parties under contract with the landfill owner.

*Statement # 3.* The gas collection and the control system will be located on the landfill property and will be used exclusively to collect emissions from the landfill and to control those emissions through energy recovery.

*EPA Comment:* We have no comment on any of the above three given statements.

### ***DEQ Question #2 and Conclusion***

How many sources are there and who are they?

Your conclusion was as follows: "Based on these activities being co-located, and mutually dependent, I concluded that the gas collection and the energy recovery-gas control system would be under the control of the landfill operator and, as such, should be considered as one source for NSR and for Title V applicability. For permitting purposes, the landfill, the gas collection operator, and the energy recovery operator would be registered and permitted separately, with the landfill owner's permit containing conditions that apply in the event of a noncompliance by either the gas collection operator or the energy recovery operator."

*EPA Response:* We agree with your conclusion that there is one source at the landfill. Under all three major source definitions under Title V (section 112, section 302, or part D of Title I), a stationary source is determined by aggregating sources which are (1) located on one or more contiguous or adjacent properties and are (2) under common control. Regardless of which major source definition is being considered, we conclude that the landfill and gas collection and control systems are one source.

One aspect of the above that may warrant further discussion is in regard to how we determined the landfill and the gas collection and control systems to be under "common control," given that the gas collection and control system will be owned and operated by separate third parties. All three statements that you provided support the conclusion that the landfill and the gas collection and control system must be considered under "common control" for Title I and Title V purposes.

Although the gas collection and control system is owned and operated by separate third parties, the owners of the gas collection and control system are under contract with the owner of the landfill. In a November 16, 1994 letter to Lisa Thorvig, Division Manager, Air Quality Division, Minnesota Pollution Control Agency from John Seitz, Director, OAQPS, the following is stated: "It is important to note that there are no provisions in Title I or Title V of the Act, or in regulations developed pursuant to them, for excluding contracted or temporary operations in defining major sources. Accordingly, it is the EPA's policy that temporary and contractor-operated units are included as part of the source with which they operate or support." (Please see the enclosed letter.)

The gas collection and control system will be used exclusively to collect emissions from the landfill and to control those emissions through energy recovery. As you have noted, this interdependence between the landfill and the gas collection and control system further indicates that both installations are under common control. For more background on common control issues, please see the enclosed letter to Peter Hamlin, Chief, Air Quality Bureau, Iowa Dept. of Natural Resources from William Spratlin, Director, Air, RCRA, and Toxics Division, Region VII, U.S. EPA, dated September 18, 1995.

Lastly, on a separate but related issue, we would like to emphasize that if permitting authorities allow separate permits to be issued to landfills and gas collection and control systems which are considered one source, those permits cannot be issued in a way that changes how the landfills or the gas collection and control systems would be subject to and comply with any applicable requirements, compared to what would otherwise occur if the source was issued a single Title V permit. A particular challenge with issuing multiple landfill permits is the difficulty of splitting the

NSPS or EG requirements among two or more permits. As a result, EPA suggests that one permit be issued to the source described above, with the permit clearly identifying the owner/operator of the landfill, the owner/operator of the gas collection system, and the owner/operator of the energy recovery-gas control system. Additionally, it is important to note that the number of permits issued to a source does not limit the liability of any of the owners/operators or contractors at the source, e.g., the owner/operator of the landfill.

We hope the enclosures combined with the above comments and responses to your questions meet your informational needs. However, if you have additional questions or concerns, please feel free to contact James B. Topsale of my staff at (215) 566-2190.

Sincerely,

/s/

Makeba A. Morris, Chief  
Technical Assessment Section

Enclosures(4):

1. Compilation of Air Pollutant Emission Factors, chapter 2, section 4, Municipal Solid Waste Landfills (Supplement D), September 1997.

2. June 9, 1997 letter from Makeba A. Morris, EPA Region III, to Carl R. York, Chief, Regulation Development Division, Maryland Air and Radiation Management Administration, w/ enclosures (5).

3. November 16, 1994 letter from John S. Seitz, Director, Office of Air Quality Planning and Standards, to Lisa J. Thorvig, Division Manager, Air Quality Division, Minnesota Pollution Control Agency.

4. September 18, 1995 letter from William A. Spratlin, Director, Air, RCRA, and Toxics Division, to Peter R. Hamlin, Chief, Air Quality Bureau, Iowa Department of Natural Resources, w/ enclosure.