EPA's Prior Determinations That Landfill Gas is Not a Solid Waste

- Since 1986, EPA has determined under RCRA that landfill gas would be regulated as an "air pollutant", rather than as "solid waste" In that regard, the regulation of MSW landfill emissions was considered during deliberations under a RCRA subtitle D rulemaking. In 1986 and 1987 the Administrator decided to regulate these emissions under the authority of the Clean Air Act. See, e.g. March 6, 1986 Memorandum from Marcia Williams to H. Lanier Hickman, Jr. (attached), cited in Definition of Solid Waste Compendium, Volume U, (Un)-Contained Gases (December 2010)(attached) (see particularly page 9, which refers to the Hickman memorandum and which characterizes landfill gas as "uncontained" and therefore not "solid waste"). After further consideration, the EPA announced in the Federal Register on August 30, 1988 (53 Fed. Reg. 33,314) (attached) their decision to regulate MSW landfill emissions under section 111 of the CAA. This ultimately occurred through the promulgation of the landfill NSPS, 40 CFR Part 60, Subparts WWW and Cc in 1996.

- In the proposed Landfill NSPS standards published on May 30, 1991 (56 Fed. Reg. 24,468) (attached), EPA again reiterated its decision to treat landfill gas as a Clean Air Act pollutant (rather than as solid waste).

- The issue was re-raised during public comment for the proposed NSPS. In response, EPA specifically stated in response: "the RCRA subtitle D establishes a framework for controlling the management of nonhazardous solid waste. Because the intent of this rule is to regulate emissions of landfill gas, and not solid waste, this regulation has been developed under the CAA instead of under RCRA. Some requirements in the RCRA subtitle D regulation are referenced within the NSPS and EG and are necessary to achieve compliance with these regulations." See Air Emissions From Municipal Solid Waste Landfills – Background Information for Final Standards and Guidelines, EPA-453/R-94-021 (December 1995), at pages 1-4, 2-31 to 2-34 (attached). Thus, the concept of utilizing RCRA authority and regulating landfill gas as solid waste was specifically rejected by EPA at that time. "Although one commenter suggested that LFG emissions should be regulated under RCRA authority, the EPA continues to consider Section 111 NSPS and EG to be the appropriate statutory approach for regulating these emissions because the adverse health and welfare effects of concern result from air emissions. Therefore, the final notice added MSW landfills as a source category for regulation under Section111(b)(1)(A) of the CAA to the priority list in 40 CFR 60.16." See id.

- On January 16, 2003, EPA issued National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills (68 Fed. Reg. 2,227), which ensured that landfill gas collection and treatment and/or control systems (including combustion units and landfill gas used on or offsite in beneficial use projects) achieved MACT level controls.

- EPA again noted on March 22, 2004, in revisions to its Criteria for Municipal Solid Waste Landfills, Final Rule for Research, Development and Demonstration Permits for Municipal Solid Waste Landfills:

"With the exception of explosive gas control requirements, landfill gas controls are not regulated pursuant to Subtitle D of RCRA: rather landfill gas emissions are regulated under the Clean Air Act (CAA). The air criteria in 40 CFR 258.24 refer to CAA requirements by requiring compliance with the applicable State Implementation Plan provisions under section 110 of the CAA. Specific requirements pertaining to landfill gas emissions from MSWLF units are addressed in 40 CFR Part 60,Subparts Cc and WWW. Recently, EPA promulgated National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills (68 FR 2227, Jan. 16, 2003). This rule includes requirements for initiating landfill gas collection and control in bioreactor landfills. See 40 CFR Part 63, Subpart AAAA…. [C]onsistent with section 1006(b) of RCRA, EPA sees no need for additional requirements under RCRA to address air emissions in today's rule."

See Final Rule, Research, Development and Demonstration Permits for Municipal Solid Waste Landfills, 69 Fed. Reg. 13,242 (2004) (attached).

- Thus, by 2004, all landfills regulated under WWW were regulated under the Section 112 Landfill MACT standards promulgated at 40 CFR Part 63, Subpart AAAA. In all instances, the notion was that landfill gas would be combusted either in open flares, enclosed combustors (enclosed flares, turbines, engines or boilers), or the gas would be treated (compressed, filtered to 10 microns or less, and cooled or chilled) and routed for use as fuel as either onsite or offsite. When combusted in turbines, engines or boilers, the landfill gas is either controlled to NSPS-specified treatment limits, or it is "treated" as per the NSPS for end use.

- Having exercised its asserted authority under RCRA Section 4004 to regulate air emissions from landfills as a "designated air pollutant" under the Clean Air Act rather than as solid waste under RCRA, the combustion of this designated air pollutant in a flare, turbine, boiler or engine should not be deemed to be the combustion of a solid waste. Stated differently, something cannot be a designated air pollutant and a solid waste at the same time.

- For purposes of Section 129, the term "solid waste' has the meaning established by the Administrator pursuant to the Solid Waste Disposal Act. The meaning established for many years by the Administrator pursuant to the Solid Waste Disposal Act (RCRA) was that landfill gas would not be treated as solid waste, and its combustion would not be treated as solid waste combustion, but rather, as an uncontained gaseous emission regulated as a designated air pollutant by the Clean Air Act. There is nothing in the Non-Hazardous Secondary Materials Rule (NHSM) that establishes that landfill gas is a solid waste, and the regulatory impact analysis for the CISWI rule gave no consideration of landfill gas as a source type for establishment of MACT. Indeed, the NHSM establishes that solid waste follows the meaning of solid waste for purposes of Subtitle D, 40 CFR 258.2. That definition excludes uncontained gas from the definition of solid waste, and has via rulemaking always excluded landfill gas.

Longstanding EPA Precedent that Uncontained Gas is not a Solid Waste

- The statutory definition of "solid waste" includes "contained gaseous material." 42 USC § 6903(27).

- EPA interpretation of the term "contained gaseous material" demonstrates that RCRA only applies to "contained" gases, to the exclusion of "uncontained" gases.

- EPA's interpretation of "contained" has been limited to gas present inside "containers."

    - In a 1989 preamble to a final rule dealing with the listing of certain hazardous substances under RCRA, EPA stated that EPA "believes our authority to identify or list a waste as hazardous under RCRA is limited to *containerized* or condensed gases (i.e., section 1004(27) of RCRA excludes all other gases from the definition of solid wastes and thus cannot be considered hazardous wastes). *See* Hazardous Waste Management System: Identification and Listing of Hazardous Waste, 54 Fed. Reg. 50968, 50973 (Dec. 11, 1989).

    - The CISWI Rule promulgated in 2000 defined contained gaseous material as limited to "gases that are in a container when that container is combusted." (EPA provided no explanation for deletion of this definition, which was not mandated or even discussed in the D.C. Circuit's *NRDC* decision.)

    - Similarly, 40 CFR Part 60, Subpart EEEE, governing Other Solid Waste Incineration Units, includes the same definition of "contained gaseous material."

- EPA has a longstanding policy providing that fume incinerators are subject to regulation only under the CAA, and not also RCRA.

    - For example, in the preamble to a 1982 dealing with regulation of incinerators that burn hazardous waste, EPA stated that "fume incinerators are subject only to regulation under the Clean Air Act . . . . Fume incinerators which are used to destroy gaseous emissions from various industrial processes, for example, are not subject to regulation under RCRA. In general, the RCRA standards do not apply to fume incinerators since the input is not identifiable as a solid waste." See The Hazardous Waste Management System, Interim Final Amendments to Interim Final and Final Rules, 47 Fed. Reg. 27,520, 27,530 (June 24, 1982). See also, RCRA Superfund Hotline Monthly Summary, 9488.1986(03) available at RCRA Online.

    - EPA has reaffirmed this position on subsequent occasions. For example, in the 1989 preamble discussed above, EPA stated that "fume incinerators are installed as air pollution control devices pursuant to regulations under the Clean Air Act; they are used to destroy gaseous emissions from various industrial processes. EPA concluded that, in general, RCRA standards do not apply to fume incinerators because the input (an uncontainerized gas) is not a solid waste." 54

Fed. Reg. 50,973 n.5. See also, Memorandum from Matthew Straus, Chief, Waste Characterization Branch, to Clifford Ng, Engineer, EPA Region II, dated June 17, 1987, available at RCRA Online ("Methanol-laden air from the drying and granulation step of the process does not meet the definition of solid waste under RCRA because it is in vapor form and not confined in a container.")

- On a few occasions, some in EPA attempted to take a broader view of contained gas (e.g. piping was enough) but that view was rejected by the courts or the administrative tribunal. See, e.g. In re BP Chemicals America, Inc., RCRA Appeal No. 89-4, 1991 EPA App. LEXIS 27; 3 E.A.D. 667 (EPA Admin., Aug. 20, 1991) (The Administrator specifically rejected Region V's argument that gaseous emissions were "contained" by the process units they passed through, associated piping or the facility itself, holding that the Agency's definition of the term "contained" has consistently been confined "in the narrower sense of being in an individual container such that the gas is amenable to shipment"). See also In re: Chemical Waste Management of Indiana, Inc., RCRA Appeal No. 95-4, *1995 EPA App. LEXIS 31*(EPA Environmental Appeals Board, Aug. 23, 1995) (emissions from microencapsulation of hazardous debris) (The EAB concludes the air emissions are excludable from Subtitle C regulation "because the air emissions that the Region seeks to regulate are not containerized.")

- In the landfill gas context, that view was similarly rejected by stakeholder groups assigned to review combustion issues. See, e.g., Recommendation from the Incinerator Workgroup on Section 112 Subcategories April 28, 1998 ("Section 129 Requirements. Section 129 applies to "solid waste combustion." Because solid waste is defined to exclude gases (except gases which are in containers), Section 129 does not apply to landfill gas flares.") (available at http://www.epa.gov/ttn/atw/iccr/incin/rec-112.pdf).

- The final Boiler MACT rule expressly recognizes that landfill gas constitutes a "gaseous *fuel*." (76 Fed. Reg. 15,684)

- See also:

  - Burning of Hazardous Waste in Boilers and Industrial Furnaces, Final Rule, 56 Fed. Reg. 7134, 7200 (Feb. 21, 1991) (activated carbon units used as air emission control devises are not subject to RCRA because "the gas originally treated is not a solid waste (it is an uncontained gas)." See also RCRA Online Determinations 12783 (November 20, 1986) (Volatile organics released to the air are not hazardous waste because they are not solid wastes. (They do not fit the definition established in §1004(27) of RCRA as "contained gaseous materials.")"

  - Hazardous Waste TSDF - Technical Guidance RCRA Air Emission Standards for Process Vents and Equipment Leaks, EPA-450/3-89-021 (July 1990) at pages 2-3: "Air standards have been promulgated for the control of air emissions from permitted hazardous waste incinerators. 40 CFR Part 264, Subpart O. These standards require that incinerators burning hazardous waste be operated to achieve a destruction and removal efficiency (DRE) of at least 99.99 percent for those

primary organic hazardous constituents listed in the facility permit However, the process vent stream (i.e. gases and vapors) from a hazardous waste management unit would not be classified as a hazardous wastes. Noncontainerized gases emitted from hazardous wastes are not themselves hazardous wastes because the RCRA statute implicitly excludes them. Therefore combustion of process vent streams in an incinerator is not subject to the 99.99 DRE requirement."

- Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF): Background Information for Promulgated Organic Air Organic Air Emission Standards for Tanks, Surface Impoundments, and Containers, EPA/453/R-94/076b (November 1994) (since organic vapors emitted from hazardous waste are not solid or hazardous waste, control devices installed to comply with Subpart CC organic vapor control requirements are not hazardous waste management units and do not require RCRA permits).