United States Environmental Protection Agency
Region 2
Division of Clean Air and Sustainability
290 Broadway
New York, New York 10007-1866

Statement of Basis for Air Pollution Control Title V Permit to Operate

Permit Number	P71-OCMH-001
Source Name	Ocean County Landfill and MRPC Holdings LFGTE Operations
Plant Street Address	2498 State Highway 70 Manchester, NJ 08759 Manchester Township, Ocean County
Permittee	Ocean County Landfill Corporation and MRPC Holdings, LLC
Permittee Contact Information	Lawrence C. Hesse, President Ocean County Landfill Corporation 25 First Avenue Atlantic Highlands, NJ 07716 Telephone: (732) 291-8100 Fax: (732) 495-6225 and Richard M. DiGia President- Chief Executive Officer MRPC Holdings, LLC 46280 Dylan Drive, Suite 200 Novi, MI 48377 Telephone: (248) 380-3920 e-mail: richard.digia@landfillenergy.com

Additional Contact Information	**On-site contacts:** For the landfill: N. Britt Raynor, Senior Vice President and Martin L. Ryan, Engineer Ocean County Landfill Corporation 2498 State Highway 70 Manchester, NJ 08759 Telephone: (732) 657-5100 Fax: 732-657-2027 Mobile tel: 732-684-3096 e-mail: mryan@cjhesse.com For the LFGTE operations Phil Maida Plant Manager c/o Ocean County Landfill 2498 Route 70 Manchester, NJ 08759 Telephone: (732) 657-6285, x MRPC Power Plant

ABBREVIATIONS AND ACRONYMS

4SLB	Four-stroke lean-burn
acfm	actual cubic feet per minute
bhp-hr	brake horsepower-hour
Btu	British thermal unit(s)
cfm	cubic feet per minute
CFR	Code of Federal Regulations
CI RICE	compression-ignition reciprocating internal combustion engines
CO	carbon monoxide
EPA	United States Environmental Protection Agency
g/bhp-hr	grams/brake horsepower-hour
H2S	hydrogen sulfide
HAP	Hazardous Air Pollutant
hp	horsepower
hr	hour
lb	pound
LFG	landfill gas
LFGTE	landfill gas-to-energy
Mg	megagram
MM	million
MMBtu	million British thermal units
MSW	municipal solid waste
NESHAP	National Emission Standards for Hazardous Air Pollutants
NJAC	New Jersey Administrative Code
NJDEP	New Jersey Department of Environmental Protection
NMOC	non-methane organic compounds as defined in 40 CFR § 60.751
NOx	nitrogen oxides
O2	oxygen
NSPS	New Source Performance Standard
NSR	New Source Review
PM	particulate matter
PM2.5	particulate matter with an aerodynamic diameter less than or equal to 2.5 microns
PM10	particulate matter with an aerodynamic diameter less than or equal to 10 microns
PSD	Prevention of Significant Deterioration
PTE	potential to emit
scf	standard cubic feet
scfm	standard cubic feet per minute
SIP	State Implementation Plan
SO2	sulfur dioxide

SSM	startup, shutdown, malfunction
VOC	volatile organic compounds that are ozone precursors as defined in 40 CFR § 51.100(s)
VOS	"volatile organic substances" as defined in NJAC 7:27-8

*In this permit, PM replaces use of the term "TSP" (total suspended particulate) used in the Part 70 permits.

I. EPA AUTHORITY TO ISSUE THIS PART 71 PERMIT

All major stationary sources of air pollution and certain other sources are required to apply for title V operating permits that include emission limitations and other conditions as necessary to assure compliance with applicable requirements of the Clean Air Act (CAA or Act), including the requirements of the applicable State Implementation Plan (SIP). CAA §§ 502(a) and 504(a). The title V operating permit program does not generally impose new substantive air quality control requirements (referred to as "applicable requirements"), but does require permits to contain monitoring, recordkeeping, reporting and other requirements to assure sources' compliance with applicable requirements. 57 Fed. Reg. 32250, 32251 (July 21, 1992). One purpose of the title V program is to "enable the source, States, EPA, and the public to understand better the requirements to which the source is subject, and whether the source is meeting those requirements." 57 Fed. Reg. at 32251. Thus the title V operating permit program is a vehicle for ensuring that air quality control requirements are appropriately applied to the source emission units and for assuring compliance with such requirements.

I.A. New Jersey Part 70 Program

Section 502(d)(1) of the CAA requires each state to develop and submit to EPA an operating permit program to meet the requirements of title V of the CAA. EPA granted interim approval, effective June 17, 1996, to the title V operating permit program submitted by the state of New Jersey, 61 Fed. Reg. 24715 (May 16, 1996), and granted full approval for the New Jersey Department of Environmental Protection (NJDEP) to administer the title V operating permit program effective November 30, 2001. *See* 66 Fed. Reg. 63168 (Dec. 5, 2001), 40 CFR Part 70 Appendix A. The state-issued title V permit is also referred to as a "Part 70 permit." Although this approval gave NJDEP primary responsibility for issuing title V permits for sources in New Jersey, EPA retains oversight authority, including pursuant to CAA §§ 502(i) and 505.

I.B. EPA's Part 71 Permitting Authority

Title V of the Act requires that EPA promulgate, administer, and enforce a Federal operating permits program when a state does not submit an approvable program within the time frame set by title V or does not adequately administer and enforce its EPA-approved program. On July 1, 1996 (61 FR 34202), EPA adopted regulations, codified at 40 CFR Part 71, setting forth the procedures and terms under which the Agency would administer a Federal operating permits program.

As relevant here, state and local permitting authorities with EPA-approved title V programs, such as NJDEP, issue title V permits pursuant to those programs. Under CAA § 505(a), and the relevant implementing regulations found at 40 CFR § 70.8(a), states are required to submit each proposed title V permit to the EPA for review. Upon receipt of a proposed permit, the EPA has 45 days to object to final issuance of the permit if the EPA determines that the permit is not in compliance with applicable

requirements of the Act or requirements under 40 CFR Part 70. CAA § 505(b)(l), 40 CFR § 70.8(c). Sections 505(c) and (e) of the Act, 40 CFR §§ 70.7, 70.8, and 71.4, and NJAC 7:27-22.12 describe EPA's role and the process by which a permitting authority can address an EPA objection and EPA's authority to reopen permits for cause.

If EPA reviews a proposed Part 70 permit and issues an objection, then, consistent with Section 505(c) of the Act, and 40 CFR § 70.8, the permitting authority has ninety (90) days to address the objection. If the permitting authority fails to address a timely objection, 40 CFR § 71.4(e) provides, in relevant part, that EPA "will deny, terminate, revise, revoke or reissue a permit which has been proposed or issued by a permitting authority or will issue a part 71 permit" using "the procedures of [Part 71] and 40 CFR 70.8(c) or (d), or 40 CFR 70.7(g)(4) or (5) (i) and (ii), as appropriate" when a Part 70 permitting authority fails to respond to a timely objection by EPA.

Pursuant to CAA § 505(e) and 40 CFR § 70.7(g), if EPA finds that cause exists to terminate, modify, or revoke and reissue a permit under title V of the Act, EPA shall notify the permitting authority and the permitting authority must forward to EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate within ninety (90) days (with an opportunity for an additional 90 days in certain circumstances). If the permitting authority fails to forward to EPA a proposed determination of termination, modification, or revocation and reissuance, 40 CFR § 71.4(e) provides, in relevant part, that EPA "will deny, terminate, revise, revoke or reissue a permit which has been proposed or issued by a permitting authority or will issue a part 71 permit" using "the procedures of [Part 71] and 40 CFR 70.8(c) or (d), or 70.7(g)(4) or (5)(i) and (ii), as appropriate" when the EPA has found that cause exists to reopen a permit and the permitting authority fails to submit to EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

The Administrator "may utilize any or all of the provisions of Part 71 to administer the permitting process for individual sources or take action on individual permits." 40 CFR § 71.4(f). The EPA-issued title V permit is referred to as a "Part 71" permit.

I.C. EPA Objection to the Manchester Renewable Power Corporation/LES Proposed Title V permit

NJDEP submitted a proposed title V permit renewal with modification for Manchester Renewable Power Corporation/LES (MRPC) to EPA, which EPA received on September 21, 2005.[1] EPA objected to the issuance of the permit under

[1] The proposed title V permit is Facility ID No.: 78901, Activity ID No.: BOP990002. Letter dated 9/7/2005 from R. Langbein (NJDEP) to S. Riva (EPA), containing NJDEP's responses to comments on the draft title V renewal permit for Manchester Renewable Power Corporation/LES. Enclosures: Response to comments document, diskette providing an electronic file of the permit. Received by EPA on 9/21/2005. The original title V permit was issued by NJDEP on June 9, 1999.

CAA section 505(b)(1) and 40 CFR § 70.8(c) in a letter to NJDEP dated November 2, 2005.[2] That letter summarized the basis of EPA's objection to the proposed permit as follows: it "(1) is not accompanied by the written common control determination requested in EPA's comments on the draft permit; (2) contains a Federal-only section identifying permit conditions that are not enforceable by the State, a situation inconsistent with the premises under which [NJDEP] received approval of its title V operating permits program; (3) contains an insufficient statement of basis; and (4) does not address all Federal requirements from both the 'New Source Performance Standards for Municipal Solid Waste Landfills' and the 'National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills' that apply to the landfill gas received by MRPC." NJDEP has not resolved EPA's objection.

I.D. EPA Finding of Common Control and Direction to NJDEP

On May 11, 2009, EPA issued a letter to officers of MRPC and Ocean County Landfill Corporation (OCLC) notifying them that the New Jersey Attorney General's Office had "requested assistance from EPA" in determining whether Ocean County Landfill (OCL) and MRPC's landfill gas-to-energy (LFGTE) operations are under common control, and that NJDEP had subsequently "agreed to implement EPA's determination."[3] The letter explained that EPA had "examined the numerous documents provided" and concluded that EPA has "sufficient information to find that the landfill and companion gas-to-energy (GTE) operations are under common control for EPA permitting purposes."[4] The letter summarized the basis for that common control determination, and explained that the "finding of common control and the previously established facts that OCL and MRPC are collocated and share the same major group SIC code provide that OCL and MRPC are to be treated as a single source for the purpose of permitting under the Prevention of Significant Deterioration (PSD), New Source Review (NSR), and title V programs of the Clean Air Act."[5] That letter outlining EPA's common control determination, and the materials supporting it, are part of the record for this proposed Part 71 permit.

On May 21, 2009, EPA notified NJDEP of EPA's finding that OCL and MRPC's LFGTE operations are under common control, and should accordingly be treated as a single source for CAA permitting purposes.[6] NJDEP began to develop a Part 70 permit for the source.[7]

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[2] Letter dated 11/2/2005 from A. Steinberg (EPA) to B. Campbell (NJDEP), containing EPA's objection to the proposed title V permit for Manchester Renewable Power Corporation/LES.

[3] Letter dated 5/11/2009 from R. Borsellino (EPA) to S. Salisbury (MRPC/LES) and L. Hesse (OCLC), Common Control Determination for Ocean County Landfill and the Manchester Renewable Power Corp./LES at page 1, *available at* http://www.epa.gov/region7/air/title5/t5memos/ocl-mrpc.pdf.

[4] *Id.*

[5] *Id.* at 2-4. The letter further stated, "[t]he existing title V permits for OCLC and MRPC must be reopened and reissued to both companies as a single source." *Id.* at 4.

[6] Letter dated 5/21/2009 from R. Borsellino (EPA) to W. O'Sullivan (NJDEP), "Re: Common Control determination for Manchester Renewable Power Corp./LES, Facility ID No. 78901,

Shortly after, OCLC made a number of administrative and judicial filings regarding EPA's common control determination. On June 15, 2009, OCLC petitioned the EPA Administrator to reconsider the EPA's common control determination and to reverse the EPA's directive to NJDEP,[8] and on August 21, 2009 requested that EPA stay any permit action pending reconsideration of the common control issue.[9] (EPA denied OCLC's petition for reconsideration on October 6, 2009.[10]) OCLC also filed, on July 2, 2009, a petition for review with the U.S. Court of Appeals for the Third Circuit, asking that court to reverse EPA's common control determination and EPA's directive that NJDEP should reopen OCLC's title V permit.[11]

NJDEP subsequently suspended work on the permit pending the outcome of the litigation. On January 29, 2010, in a teleconference call among EPA, NJDEP, and the NJ Attorney General's Office, NJDEP informed EPA that it would not proceed with drafting the single source permit(s) notwithstanding the possibility of EPA acting under Part 71. In a letter to EPA on April 7, 2010, NJDEP endorsed a possible future decision by EPA to proceed with permitting under Part 71.[12]

Activity ID No. BOP990002, and Ocean County landfill, Facility ID No. 78931, Activity ID No. BOP050001."

[7] For example, NJDEP responded to the direction from EPA by hosting a teleconference meeting among NJDEP, OCLC, and EPA on June 30, 2009 to discuss the process for permitting OCL and MRPC's LFGTE operations as a single source; and then another meeting on August 27, 2009 to initiate the permitting and establish a schedule for completing the preliminary draft by mid-October 2009.

[8] Letter dated 6/15/2009 from S. Ayres (Scarinci Hollenbeck, attorneys for OCLC) to L. Jackson (EPA), "Ocean County Landfill Corp. request for reconsideration and reversal of Region 2 determination of common control and direction to New Jersey Department of Environmental Protection to reopen the Ocean County Landfill title V permit and issue a combined permit with the landfill gas to energy facilities owned and operated by MEPC Holdings LLC. With attachments.

[9] Letter dated 8/21/2009 from S. Ayres (Scarinci Hollenbeck, attorneys for OCLC) to L. Jackson (EPA), Ocean County Landfill Corporation v. U.S. Environmental Protection Agency, Third Circuit Court of Appeals Docket No. 09-2937.

[10] Letter dated 10/6/2009 from G. Pavlou (EPA) to S. Ayres (Scarinci Hollenbeck, attorneys for OCLC), Ocean County Landfill Corp. (OCLC)/Manchester Renewable Power Corp./LES Common Control Determination, about denial of OCLC's requests to the Administrator dated 6/15/2009 and 8/21/2009.

[11] *Ocean County Landfill Corporation v. U.S. Environmental Protection Agency, Third Circuit Court of Appeals Docket No. 09-2937*. Petition filed on July 2, 2009 by OCLC in the U.S. Court of Appeals for the Third Circuit for review "of the final common control determination made and directive requiring the re-opening of its Title V Permit issued by the United States Environmental Protection Agency, Region 2, as set forth in the agency's May 11, 2009 letter." On September 25, 2009, EPA filed a motion for the court to dismiss the case filed by OCLC. On April 30, 2010, EPA filed a brief in the case arguing that the Court should dismiss for lack of jurisdiction but that if it reached the merits, the Court should deny OCLC's petition.

[12] Letter dated 4/7/2010 from J. Preczewski (NJDEP) to S. Riva (EPA). Re: Ocean County Landfill/Manchester Renewable Power Title V Permit, about EPA's issuing a single permit

The Third Circuit held oral argument on January 10, 2011, and issued its opinion a few weeks later on February 2, 2011, granting EPA's motion to dismiss for lack of subject matter jurisdiction. Specifically, the court held that EPA's common control determination was not a final agency action within the meaning of 42 U.S.C. § 7607(b). *See Ocean County Landfill Corp. v. United States EPA*, 631 F.3d 652 (3d Cir. 2011).

I.E. EPA Reopening for Cause of the Ocean County Landfill Title V Permit

On March 31, 2011, pursuant to Section 505(e) of the CAA and 40 CFR § 70.7(g)(5)(i), EPA provided written notice to OCLC of EPA's proposed action to initiate the process under 40 CFR Part 71 to "terminate, modify, or revoke and reissue" OCLC's title V operating permit[13] consistent with EPA's May 11, 2009 common control determination.[14] On May 26, 2011, OCLC submitted a letter setting forth comments on EPA's proposed action and requested a hearing on the matter.[15] EPA granted OCLC's request for a hearing, and held that hearing on June 1, 2011. EPA thoroughly reviewed the information presented at that hearing, as well as OCLC's written comments. On October 26, 2011, EPA issued a letter to OCLC indicating that OCLC had not provided EPA with any new factual evidence supporting its contention that OCLC's landfill and MRPC's LFGTE operations are not under common control, or otherwise presented facts or arguments that would warrant reconsideration of EPA's common control determination.[16] The October 26, 2011 letter also provided OCLC notice that (1) pursuant to 40 CFR Part 71, EPA was initiating the process to "terminate, modify, or revoke and reissue" OCLC's title V operating permit consistent with EPA's May 11, 2009 common control determination and that (2) in accordance with the CAA and 40 CFR Part 71, EPA would be requesting a Part 71 permit application from OCLC and MRPC, after which EPA would proceed with the appropriate action.

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under Part 71. Received 4/13/2010. In reference to the possibility of EPA's proceeding with permitting under Part 71, the letter stated that NJDEP "agrees with this course of action since it is the most effective way to address the EPA's common control determination and any subsequent appeal from such a determination."

[13] The title V permit for OCL that was submitted in the Part 71 application was issued by NJDEP as Permit Activity Number BOP080002, Program Interest Number 78931, approved June 26, 2009. It is a minor modification to the original title V permit for OCL, which was issued as BOP990001, 78931, on October 19, 2004.

[14] Letter dated 3/31/2011 from J. Enck (EPA) to L. Hesse (OCLC). Re: Notice of Action by the Environmental Protection Agency to modify Ocean County Landfill's title V operating permit.

[15] Letter dated 5/26/2011 from S. Ayres (Scarinci Hollenbeck) to S. Riva (EPA). Re: Notice of Action by the Environmental Protection Agency to Modify Ocean County Landfill's Title V Operating Permit.

[16] Letter dated 10/26/2011 from Judith A. Enck (EPA) to S. Ayres (Scarinci Hollenbeck). Re: Response to comments from Ocean County Landfill Corporation addressing EPA's Notice of Action to modify the title V operating permit for Ocean County Landfill.

I.F. EPA Request for Part 71 Permit Application(s)

On November 23, 2011, EPA requested that OCLC and MRPC submit a Part 71 application or applications to EPA.[17] On May 29, 2012, EPA received application materials timely from OCLC and MRPC. EPA reviewed the materials, discussed them with the applicants, and obtained further information, but was unable to obtain the information needed to deem the application complete. On July 27, 2012, EPA notified OCLC and MRPC that the application, the composite of the application materials, was not complete and described the further information needed to reach a determination of completeness.[18] Information was provided and discussed. On January 15, 2013, EPA notified OCLC and MRPC that the Part 71 permit application was complete, but that they would have to provide additional information as requested by EPA for preparing the Part 71 permit.[19]

I.G. Disposition of the Part 70 Permits

The issuance of this Part 71 permit for Ocean County Landfill and MRPC Holdings LFGTE Operations has terminated the separate Part 70 permits in effect separately for OCL and MRPC.[20] This Part 71 permit supersedes those permits for purposes of title V of the Act.

EPA's Part 71 permitting action is not intended to change NJDEP's underlying authority to enforce requirements under state law and preconstruction permit requirements for this source, or any authority it has to implement federal regulations for this source (aside from the title V permitting authority).[21]

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[17] Letter dated 11/23/2011 from Judith A. Enck (EPA) to R. DiGia (MRPC Holdings) and L. Hesse (OCLC). Re: Ocean County Landfill and Manchester Renewable Power Corporation/LES (a.k.a. MRPC Holdings, LLC) Clean Air Act Title V Federal Operating Permit Applications(s).

[18] Letter dated 7/27/2012 from S. Riva (EPA) to Lawrence C. Hesse (OCLC) and Richard M. DiGia (MRPC Holdings, LLC). Re: Ocean County Landfill and MRPC Holdings LFGTE Operations- Completeness Determination- 40 CFR Part 71 (title V) Permit Initial Application

[19] Letter dated 1/15/2013 from S. Riva (EPA) to Lawrence C. Hesse (OCLC) and Richard M. DiGia (MRPC Holdings, LLC). Re: Ocean County Landfill and MRPC Holdings LFGTE Operations- Notice of Complete Application- 40 CFR Part 71 (title V) Permit Initial Application.

[20] The terminated Part 70 permit for OCL is "Minor Modification and Preconstruction Approval," Facility ID No.: 78931, Activity ID No.: BOP080002, initial operating permit approval date October 19, 2004. The terminated Part 70 permit for MRPC is "Minor Modification and Preconstruction Approval," Facility ID No.: 78901, Activity ID No.: BOP080001, initial operating permit approval date June 9, 1999.

[21] NJDEP issued three minor source preconstruction permits to "Ocean County Landfill Corp." in 1991, 1993, and 1998 before issuing the title V permit in 2004. They are PCP980001, PCP000001, and PCP010001. NJDEP issued six preconstruction permits to "Manchester Renewable Power Corporation/Landfill Energy Systems (MRPC/LES)"–PCP78429 001 through -006, one permit for each of the six EU-E1 engines–in 1995 before issuing the title V permit in 1999; and then issued a PSD preconstruction permit in 2006 for the addition of the EU-E2 engines. Both title V permits were modified after their original issuance. The title V

I.H. Judicial Review

Under 40 CFR § 71.11(l), for purposes of judicial review, final agency action occurs when the permit is issued or denied, and agency review procedures are exhausted.

II. SOURCE INFORMATION

OCL is an active landfill that receives municipal solid waste (MSW) for placement in the landfill, and MSW and additional waste types for materials recovery and transfer. Gas generated by the in-place waste is collected under vacuum and routed to either flares at the landfill or to the adjacent LFGTE operations owned by MRPC Holdings, LLC. Landfill gas received by MRPC is treated and routed to engines as fuel to generate electricity as called for by MRPC's power company customers. Leachate collected from the landfilled waste is either recirculated through the waste to promote faster biodegradation of the waste, or treated and discharged to an Ocean County Utilities Authority sewer trunk line and publicly-owned treatment works. Together, the landfill, the waste transfer and materials recovery operations, and the LFGTE operations comprise the source–Ocean County Landfill and MRPC Holdings LFGTE Operations. The applicable requirements for the source are based on consideration of operations and emissions at the entire source.

The source is located at 2498 State Highway 70 in Manchester Township, Ocean County, New Jersey. The landfill is bounded on the west by Route 70, on the north by Ridgeway Road (County Route 571), and on the east by the nearby branch of the Toms River. Access to the landfill is from a signaled intersection on Route 70. Ocean County is classified as nonattainment for ozone based on the National Ambient Air Quality Standard for ozone.

The SIC codes for this source are 4911- Electric Services, and 4953- Refuse Systems, as previously identified in the permits issued by NJDEP under 40 CFR Part 70. The NJ State ID numbers for the landfill and the LFGTE operations, respectively, 78931 and 78901, have become inactive, but are retained in the NJDEP system for historical reference. The EPA Air Facility System (AFS) identities for the landfill and LFGTE operations as tracked under the previous Part 70 permits were, respectively, 3402978340 and 3402978429. The AFS identity for the source, Ocean County Landfill and MRPC Holdings LFGTE Operations, is 3402988888.

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permit for MRPC/LES underwent minor modifications after 1999, and significant modifications at the time of the PSD permitting in 2006. In 2011, NJDEP issued a minor modification to the MRPC/LES title V permit that, among other changes, changed the name of the permittee to "MRPC Holdings, LLC." In 2014, NJDEP issued a preconstruction permit and significant modification to the title V permit for OCLC to add new equipment.

II.A. Emission Units

This section lists and describes each emission unit and its associated processes and emission controls, including units classified as Insignificant Emission Units. Part 71 allows sources to separately list in the permit application activities and emission levels that qualify as "insignificant." 40 CFR § 71.5(c)(11). Insignificant emission units are defined as those with potential emissions below 2 tons/year for all regulated pollutants that are not listed as hazardous air pollutants ("HAP") under Section112(b) and below 1,000 lbs/year or the de minimis level established under Section 112(g), whichever is lower, for HAPs. 40 CFR § 71.5(c)(11)(ii). However, the application may not omit information needed to determine the applicability of, or to impose, any applicable requirement, or to calculate the permit fee. 40 CFR § 71.5(c)(11). Units that qualify as "insignificant" for 40 CFR Part 71 application purposes are not exempt from applicable requirements or any requirements of the Part 71 permit.

Emission Unit EU-L: MSW Landfill cells

This unit consists of landfill cells, both active and inactive. In-place waste undergoes biodegradation which generates landfill gas. The gases from biodegradation and from volatilization of materials in the waste at the time of placement are drawn into a gas collection system of piping that is under vacuum—an active gas collection system—and routed to various on-site locations for destruction or use. The generated gas is collected at a nominal rate of 85%, with the remaining 15% uncollected. A leachate collection system collects liquid that drains via gravity from the in-place waste and condensate that forms in the gas collection system piping, and routes them to the leachate treatment plant for recirculation, storage, or treatment and disposal. There is no other addition of liquids to the waste. Gas from the leachate collection system and the leachate treatment system flows to the gas collection system with which it is interconnected. As provided in the permit condition regarding determination of the maximum expected gas generation rate, the total design capacity for the landfill is 13 million (MM) megagrams (Mg). The maximum amount of landfill gas (LFG) that it is permitted to be combusted in the flares and engines combined is 6107 standard cubic feet per minute (scfm), annual average. Within this total, there are permit limits on the maximum amount of gas that either set of engines may combust. While the OCLC Part 70 permit applies the annual limit of 6107 scfm (or 3210 MM scf) only to the flare system, it also provides that when landfill gas is not sent to the engines it must be controlled by the enclosed flares. The Part 71 permit likewise requires the LFG to be controlled using the enclosed flares when it is not sent to the engines. As such, the flares serve as the overall back-up for LFG control at the source, and must be capable of controlling all of the LFG collected in the event none of the engines is using the gas without exceeding permit limits. Accordingly, the Part 71 permit applies the 6107 scfm (or 3210 MM scf) limit on the maximum amount of LFG that the permittee may combust to the flares and engines combined.

Any changes in operation of the landfill that increase the maximum estimated gas generation rate and/or the gas collection rate also affect the pollutant emission rates,

whether from combustion of collected LFG or direct emissions of uncollected LFG. Among the operational parameters that affect the gas generation rate are the waste placement rate, leachate recirculation, addition of liquids other than the leachate and condensate collected from the in-place waste,[22] and the waste placement history, all of which are inputs or considerations for the modeling of the degradation of the waste over time. Gas collection rate is affected by the landfill cover material, the design of the gas collection system, and the conduct of activities at the active face of the landfill. The uncollected emissions of LFG contribute to sourcewide VOC, HAPs, and greenhouse gas emissions.

Equipment at EU-L:

- L-01 is gas handling at the landfill.
- L-01-1 is the gas collection system.
- L-01-CD1 and L-01-CD10 are enclosed flares, each with a nominal capacity of 3000 scfm. CD1 was manufactured by I.T. McGill and installed in 1991. It has a maximum gross rated heat input of 100 MM British thermal units (MMBtu)/hr and a minimum gas flow rate of 500 actual cubic feet per minute (acfm). CD10 was manufactured by LFG Specialties, Inc., model EF1045112, and installed in 2001. It has a turn-down ratio of 5:1 for operation as low as 600 scfm. These flares are landfill gas controls per the 40 CFR 60 Subpart WWW requirements. They were designated CD1 and CD10 in previous permits. CD10 was referred to as the "back-up" flare when CD1 was referred to as the "main" flare in the Part 70 permit.
- L-01-CD11 is a portable, open flare with a nominal capacity of 600 scfm. It collects gas for odor control where LFG control is not required by 40 CFR 60 Subpart WWW.
- L-02 is liquid handling at the landfill.
- L-02-1 is the leachate collection system

[22] The NESHAP for MSW Landfills, 40 CFR 63 Subpart AAAA, at 40 CFR § 63.1990 distinguishes between adding to the landfill the leachate and condensate collected from the in-place waste, and adding liquids other than the leachate and condensate collected from the waste. This latter practice–the addition of liquids other than the landfill's leachate and condensate, in some places referred to as "liquid addition"–is addressed in provisions in the NESHAP applicable to bioreactor landfills. 40 CFR § 63.1990 defines a bioreactor landfill as follows: "Bioreactor means a MSW landfill or portion of a MSW landfill where any liquid other than leachate (leachate includes landfill gas condensate) is added in a controlled fashion into the waste mass (often in combination with recirculating leachate) to reach a minimum average moisture content of a least 40 percent by weight to accelerate or enhance the anaerobic (without oxygen) biodegradation of the waste." The permit does not include requirements for operations that include addition of liquids other than leachate and condensate to the landfill. The use of liquid addition at this source would constitute a change in method of operation that must be reported consistent with 40 CFR § 60.7(a)(4), and would require a determination of the applicability of additional requirements. Liquid addition is not allowed under this permit.

- L-02-2 is two leachate storage tanks and a leachate equalization/storage lagoon. The lagoon is equipped with a floating geomembrane cover to control odors and maintain anaerobic conditions in the lagoon. Leachate from the collection system is pumped to either this storage lagoon or the leachate storage tanks.
- L-02-3 is the leachate treatment plant and storage vessel.
- L-02-3-1 is three anaerobic leachate treatment units. The anaerobic Matrix Biological Filter (MBF) system in these tanks treats leachate using the MBF and agitates the liquid using weirs to ensure proper mixing.
- L-02-3-2 is the anaerobic leachate treatment storage vessel.
- L-02-3-3 is the 2.5 MMBtu boiler used to heat the leachate treatment system. It is fueled with #2 fuel oil.
- L-03 is four RICE generators at the landfill.
- IS-L-01 through -06 are designated as Insignificant Emission Units at EU-L. They are IS-L-
  - (01) a 2000-gallon storage tank for #2 fuel oil,
  - (02) a 1000-gallon storage tank for diesel fuel,
  - (03) seven combustion source heaters each <1 million Btu/hr,
  - (04) a 10,000-gallon underground storage tank for #2 fuel oil,
  - (05) a 10,000-gallon underground storage tank for diesel fuel oil, and
  - (06) three aerobic treatment tanks with influent concentrations <3500 ppb VOC (total) and <100 ppb toxic substances listed in NJAC 7:27-17.3, Table 1.

Emission Unit EU-E1: LFGTE Caterpillar model 3516 engines

This emission unit consists of a set of six engines installed in 1995 at the LFGTE operations, and support for the operation of the engines. In the state-issued title V permit, the engines are designated U1 through U6 and referred to as "MRPC engines." In this permit, they are designated EU-E1-U1 through EU-E1-U6. Each engine is nominally 1138 bhp, 800 kW. The combined capacity of six engines is nominally 52 MMBtu/hr, approximately 1600 scfm of landfill gas, producing 4.8 MW of electricity. The engines are fueled only by landfill gas from EU-L.

Equipment at EU-E1:

- E1-01 is the landfill gas treatment system that prepares the landfill gas to fuel the EU-E1 engines. This also serves as a control for LFG generated by the landfill, a control option under the NSPS for MSW Landfills. Emissions are nominally zero: the system is connected to the gas collection system headers at the inlet side and to the engines at the outlet side.
- IS-E1-01 and -02 are designated as Insignificant Emission Units at EU-E1. They are IS-E1-
  - (01) a 3000-gallon storage tank for new lube oil for the U1-U6 engines- located above ground, adjacent to building that houses the U1-U6 engines at EU-E1 and

(02) a 1400-gallon storage tank for waste lube oil for the U1-U6 engines- located above ground, adjacent to building that houses the U1-U6 engines at EU-E1.

Emission Unit EU-E2: LFGTE Caterpillar model 3520LE engines

This unit consists of a set of six engines at the LFGTE operations, installed in 2007 with startup on 4/3/2007, and support for the operation of the engines. In the state-issued title V permit, the engines are designated U7 and referred to as "OEC engines." In this permit, they are designated EU-E2-U7-1 through EU-E2-U7-6. Each engine is nominally 2233 bhp, 1600 kW. The combined capacity of six engines is nominally 98 MMBtu/hr, approximately 3200 scfm of landfill gas, producing 9.6 MW of electricity. The engines are fueled only by landfill gas from EU-L.

Equipment at EU-E2:

- E2-01 is the landfill gas treatment system that prepares the landfill gas to fuel the EU-E2 engines. This also serves as a control for LFG generated by the landfill, a control option under the NSPS for MSW Landfills. Emissions are nominally zero: the system is connected to the gas collection system headers at the inlet side and to the engines at the outlet side.
- IS-E2-01 and -02 are designated as Insignificant Emission Units at EU-E2. They are IS-E2-
  - (01) a 3000-gallon storage tank for new lube oil for the U7 engines- located above ground, adjacent to building that houses the U7 engines at EU-E2 and
  - (02) a 2000-gallon storage tank for waste lube oil for the U7 engines- located above ground, adjacent to building that houses the U7 engines at EU-E2

Emission Unit EU-R: Transfer Station/Materials Recovery Operations (TS/MR)

This unit receives truckloads of materials at a maximum rate of 2000 tons/day as allowed in the solid waste permit. The material types that are permitted to be received, processed, loaded, and shipped here are 10 (Municipal- household, commercial and institutional), 13 (Bulky waste such as appliances), 13C (Construction and Demolition waste), 23 (Vegetative waste), 25 (Animal and food processing wastes), 27 (Dry industrial waste), 27A (Waste material consisting of asbestos or asbestos-containing wastes), and 27I (Waste material consisting of incinerator ash or ash-containing wastes), as defined in NJAC 7:26-2.13. As of the time this permit is issued, there is no equipment at the TS/MR Operations unit to conduct waste transfer or materials recovery, and the building with the air handling units is not in use. The asbestos waste is accepted and placed, without processing, in dedicated cells, separate from the MSW cells. LFG collection and control at the source does not extend to these cells. Hours of operation are Monday through Friday from 7 a.m. to 6 p.m., and Saturday from 7 a.m. through 3:30 p.m.

Equipment at EU-R:

- R-CD40 and -CD41 are building exhaust air filtration units for dust and odor control. Each unit consists of a fabric particulate filter and a carbon adsorption media cartridge.

II.B. Potential to Emit

Table 1 below presents the potential to emit (PTE) in units of tons/year for the source, Ocean County Landfill and MRPC Holdings LFGTE Operations. "Potential to emit" is defined in 40 CFR § 70.2 as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or effect it would have on emissions is federally enforceable."[23]

The PTE table includes estimated emissions from insignificant emission units. As discussed in Section II.A above, emissions from insignificant emission units are included for the purposes of determining applicability. The four RICE generators at EU-L, formerly identified as "emergency generators" and grouped with Insignificant Emission Units in the Part 70 permit for the landfill, are now identified as L-03-1 through -4.

The PTE is based on the worst-case emissions scenario for the source: all twelve LFGTE operations engines operating at full capacity and the flares burning the gas that is beyond the capacity of the engines. This is regarded as the worst-case emissions scenario since the emission factors used in the application represent the flares as cleaner-burning than the engines. The maximum amount of landfill gas that may be combusted is 3210 MM standard cubic feet (scf) in any calendar year, which is equivalent to an average of 6107 scfm. This fuel limit does not specify the Btu content or methane content of the gas. In order to relate this limit on the flares to the limits on the engines, which are keyed to Btu, the flare permit limit is defaulted to the generic LFG methane content of 50% methane and a methane higher heating value of 1010 Btu/scf. The 6107 scfm is assumed to be 50% by volume methane. With the engines consuming Btu at a rate equivalent to a maximum of 5394 scfm at 50% methane, assuming a methane heating value of 1010 Btu/scf, this leaves 713 scfm LFG for combustion in the enclosed flares. The PTE in Table 1 is based on operation of the engines and flares at these levels–5394 scfm LFG and 713 scfm LFG,

[23] As explained in EPA guidance, the term "federally enforceable" in this definition should be read to mean "federally enforceable or legally and practicably enforceable by a State or local air pollution control agency" following the court decision in *Clean Air Implementation Project v. EPA*, No. 96-1224 (D.C. Cir. June 28, 1996), which remanded and vacated the requirement for federal enforceability for limits on potential to emit under Part 70. *See* John Seitz and Robert Van Heuvelen, "Extension of January 25, 1995 Potential to Emit Transition Policy" (Aug. 27, 1996), at 3.

respectively, both as LFG that is 50% methane–and emission factors provided in the Part 71 application.[24]

The status of this source as non-major for HAPs is information used in determining applicable requirements for engines subject to the NESHAP for RICE (40 CFR 63 Subpart ZZZZ) and for engines subject to the NSPS for CI ICE (40 CFR 60 Subpart IIII).

Where operational limits and emission limits were used to calculate the PTE, these limits are from the permits previously issued by NJDEP. Where emission factors were used to calculate the PTE, the emission factors were provided in the Part 71 application, in the case of the flares, or available in AP-42,[25] in the case of the RICE generators at EU-L.

[24] The permit requires stack testing of the flares to provide emission factors appropriate for their level and manner of operation. The emission factors are used to assess compliance with the emission limits in the permit.

[25] AP-42, Compilation of Air Pollutant Emission Factors, available on the internet at http://www.epa.gov/ttn/chief/ap42/index.html

Table 1. Potential to Emit, tons/year

Emission unit ID	CO	NOx	PM	PM10	PM2.5	VOC	NMOC [26]	SO2	GHG-CO2E	GHG-mass	Total HAPs[27]	Max individual HAP	H2S[28]
Landfill, EU-L													
Uncollected emissions from in-place waste						9			<160829		<8.35		
L-01-CD1, –CD10, -CD11, and L-03-5 (enclosed flares + boiler)	89.4	53.7	3	3		3.2		23.9	<27311		<2.17	<0.16 (vinyl chloride)	<0.18
Boiler (L-02-3-3 burning #2 fuel oil)	0.9	1.54						3.4					
RICE generators (L-03-1 through -4)[29]	5.18	24.0		1.71		1.95		1.58			0.0175		
Insignificant emission units at EU-L (heaters, storage tanks, treatments tanks, lagoon)[30]	<2	<10	<0.8	<0.1	<0.1	<1.6	12	<2			<0.8		11.99

[26] NMOC values for the flares are from emission limits. Other NMOC values are from other information in the application.

[27] HAPs values are from information in the application other than emission limits.

[28] H2S values are from information in the application other than emission limits.

[29] Ref: AP-42 (1996 version) at http://www.epa.gov/ttnchie1/ap42/ch03/final/c03s03.pdf : 3.3 Gasoline And Diesel Industrial Engines, Table 3.3-2: Speciated Organic Compound Emission Factors for Uncontrolled Diesel Engines. Calculation based on AP-42, the assumption of 7000 Btu/hp-hr, and operation of each engine for a maximum of 8760 hours per year.

[30] Ref: OCL's 2012 Emission Statement, which includes emergency generators (referred to as "RICE generators" in this permit). The PTE in this table is presented as less than approximately ten times the tons/year emissions provided in the 2012 Emissions Statement in the section titled "IS0," the summary for the IS equipment. The amounts in tons per year in the Emission Statement are identified as follows: CO, 0.23; NOx, 1.04; PM10 (total) 0.01; PM2.5 (total), 0.01; SO2, 0.20; PM, 0.08. For VOC, 0.08 stack + 0.8 fugitive, the "fugitive" amount was not multiplied

Emission unit ID	CO	NOx	PM	PM10	PM2.5	VOC	NMOC [26]	SO2	GHG-CO2E	GHG-mass	Total HAPs[27]	Max individual HAP	H2S[28]
Transfer Station/Materials Recovery Operations, EU-R			4.01	2.01	0.48								
LFGTE operations, EU-E1 and EU-E2													
EU-E1-U1 through –U6 engines	151.5	65.96	5.78	5.78	5.78	24.7	10.55	4.47	29,955	28,812	6.6	1.8 (HCl)	
EU-E2-U7-1 through –U7-6 engines	356.0	64.7	25.9	25.9	25.9	20.22	20.22	29.7	49,664	49,418	4.9	3.4 (HCl)	
Insignificant emission units at EU-E1 and EU-E2 (four storage tanks listed separately)											<0.5		
Totals	<605.0	<219.9	<39.49	<38.5	<32.26	<60.67	42.8	<65.0	<267,759	>78,230	<23.3	≥5.36 (HCl)	<12.17

since uncollected gas was not regarded as subject to the same year-to-year variability as the amount of collected gas that was combusted in the flares rather than the engines at the LFGTE operations.

III. APPLICABLE REQUIREMENTS

III.A. Applicable Federal Air Quality Regulations

Considering the equipment at the source and how it is operated, and consequent maximum potential pollutant emission rates, we find the following standards and regulations to be federal applicable requirements for this source to be covered by the Part 71 title V permit.

- New Source Performance Standards for Municipal Solid Waste Landfills- 40 CFR 60 Subpart WWW (NSPS for MSW Landfills)
- General Provisions for 40 CFR Part 60- 40 CFR 60 Subpart A
- National Emission Standards for Hazardous Air Pollutants Municipal Solid Waste Landfills- 40 CFR 63 Subpart AAAA (NESHAP for MSW Landfills).
- General Provisions for 40 CFR 63 as they apply to 40 CFR 63 Subparts AAAA and ZZZZ.[31]
- National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)- 40 CFR 63 Subpart ZZZZ (NESHAP for RICE) (Applicable to both spark-ignited and compression ignition engines at this source.)
- Standards of Performance for Stationary Compression Ignition Internal Combustion Engines- 40 CFR 60 Subpart IIII (NSPS for CI ICE)
- National Emission Standard for Asbestos- 40 CFR 61 Subpart M- Standard for Demolition and Renovation (40 CFR § 61.145) and Standard for Active Waste Disposal Sites (40 CFR § 61.154)
- General Provisions for 40 CFR Part 61- 40 CFR 61 Subpart A
- Prevention of Significant Deterioration- 40 CFR § 52.21 (PSD)
- EPA-approved New Jersey State regulations, approved by EPA in the NJ State Implementation Plan (SIP)- 40 CFR § 52.1605. This provides the versions and portions of regulations in NJAC 7:27 that are approved into the SIP, and which are therefore federal applicable requirements under the definition in 40 CFR § 71.2. The following subchapters of 7:27 are provisions of the SIP that apply to this source:
  - General Provisions- Subchapter 1
  - Control and Prohibition of Open Burning- Subchapter 2
  - Control and Prohibition of Smoke from Combustion of Fuel- Subchapter 3

[31] In its 2008 decision in *Sierra Club v. EPA*, 551 F.3d 1019 (D.C. Cir. 2008), the United States Court of Appeals for the District of Columbia Circuit vacated portions of two provisions in the EPA's CAA section 112 regulations governing the emissions of HAP during periods of startup, shutdown, and malfunction (SSM). Specifically, the Court vacated the SSM exemption contained in 40 CFR 63.6(f)(1) and 40 CFR 63.6(h)(1), holding that under section 302(k) of the CAA, emissions standards or limitations must be continuous in nature and that the SSM exemption violates the CAA's requirement that some section 112 standards apply continuously.

- Control and Prohibition of Particles from Combustion of Fuel- Subchapter 4
- Prohibition of Air Pollution- Subchapter 5
- Control and Prohibition of Particles From Manufacturing Processes- Subchapter 6
- Sulfur- Subchapter 7
- Permits and Certificates- Subchapter 8
- Sulfur Content in Fuel- Subchapter 9
- Prevention and Control of Air Pollution Control Emergencies- Subchapter 12
- Control and Prohibition of Air Pollution by Volatile Organic Compounds- Subchapter 16 (VOC RACT)
- Control and Prohibition of Air Pollution from New or Altered Sources Affecting Ambient Air Quality (Emission Offset Rules)- Subchapter 18. (Nonattainment NSR)
- Control and Prohibition of Air Pollution by Oxides of Nitrogen- Subchapter 19 (NOx RACT)
- Emission Statements- Subchapter 21
- Prevention of Air Pollution From Architectural Coatings- Subchapter 23

The NJ SIP, as approved by EPA, contains provisions in Subchapter 8 that authorize the creation of certain conditions and provisions that would apply to the source. These requirements would be developed in the context of issuing a preconstruction permit or other permit, such as a Part 70 permit. The source subject to this Part 71 permit has obtained permits that include terms developed pursuant to Subchapter 8 authority, and this Part 71 permit incorporates those terms and conditions.

GHG reporting is required under 40 CFR Part 98, but this reporting is not a title V requirement. The PTE for GHG for this source is included in this statement of basis to provide information that may be helpful in determining applicable requirements in the future. GHG reporting rule references are 40 CFR Parts 98 HH and C.

III.B. Applicability thresholds met/exceeded

For the requirements with applicability thresholds, the thresholds met by this source are described below.

- NSPS for MSW Landfills: The source has a waste placement design capacity of 2.5 MM Mg or more, and 2.5 MM cubic meters or more, and thus is subject to the NSPS and is subject to title V permitting requirements.
(40 CFR § 60.752(b)) The estimated NMOC content of the landfill gas generated has reached the 50 Mg/year threshold for requiring landfill gas collection and control.

- NESHAP for MSW Landfills: A landfill that is subject to the NSPS for MSW Landfills is also subject to this NESHAP. Thus, this source is subject to the NESHAP for MSW Landfills.
- PSD: The source is an existing PSD source. A PSD permit was required and obtained for the increases in CO and PM10 emissions from the addition of the EU-E2 engines to the LFGTE operations. Among other things, the PSD permit required that the EU-E1 engine stack heights be raised before startup of the EU-E2 engines in 2007, so that the stack height for each of the EU-E1 and EU-E2 engines is at least 37.5 feet. The stacks were raised. The PSD review also addressed increased NOx emissions, however the permit limits for NOx were written at the more stringent level required under non-attainment NSR for NOx as an ozone precursor.
- Nonattainment NSR: The source is an existing major source of NOx and VOC for nonattainment NSR. Ocean County, NJ is classified currently as nonattainment for ozone. MRPC obtained 86 tons of NOx emission offsets from E.I. DuPont in Newark, NJ before starting up the EU-E1 engines (original set of engines) in 1995. MRPC obtained 84.1 tons of NOx emission offsets from Saint-Gobain Containers, located at a distance of 70 miles (less than 100 miles) from MRPC, in the city of Millville, Cumberland County, New Jersey, before starting up the EU-E2 (newer set of engines) in 2007.
- Title V: The source is required to have a title V permit because it is a major source under nonattainment NSR and under PSD, and is a major source because the entire source has emissions of 100 tons or more of NOx and CO. The source is also required to have a title V permit because it is an affected source under 40 CFR 60 Subpart WWW (NSPS for MSW Landfills).
- NESHAP for RICE:
  - The EU-E1 set of engines installed in 1995 at the LFGTE operations and the EU-E2 set of engines documented as ordered on 12/19/2005 are both defined in 40 CFR 63 Subpart ZZZZ (NESHAP for RICE) as engines constructed before the 6/12/2006, and, thus, as "existing" engines. Depending upon the particular Subpart ZZZZ requirement, these engines are classified variously as (a) Existing non-emergency, non-black start 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that operate more than 24 hours per calendar year; and (b) Existing non-emergency, non-black start stationary RICE located at an area source of HAP emissions which combust landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. Both sets of engines were to comply with the requirements of this NESHAP no later than October 19, 2013.
  - The RICE generators L-03-1 and L-03-2 are defined under this subpart as constructed before 6/12/2006 and, thus, "existing" engines; and classified as existing non-emergency CI RICE ≤300 hp located at an area source of HAPs. These engines were to comply with the requirements of this NESHAP no later than May 3, 2013.

- NSPS for CI ICE: The RICE generators L-03-3 and L-03-4 are classified under 40 CFR 60 Subpart IIII (NSPS for CI ICE) as non-emergency stationary CI ICE <10 liters, with applicable requirements varying based on maximum horsepower and year of construction.

IV. PERMIT CONDITIONS

The permit conditions are grouped into three categories: (1) Source-Specific Requirements applicable (a) Sourcewide, (b) only to the Landfill emission unit, (c) only to the LFGTE Operations emission unit, and (d) only to the Transfer Station/Materials Recovery Operations emission unit; (2) General Requirements; and (3) Part 71 Administration Requirements.

The term "permittee" in this permit refers to both Ocean County Landfill Corporation and MRPC Holdings, LLC. The Part 71 application materials submitted by both parties included the same set of "bridge terms" that proposed a division of responsibilities between the two parties, stating their preferences for which of the companies would or would not be responsible for compliance with various types of permit conditions, liable for non-compliance, and responsible for payments; and stating that neither company would be required to join the other in applying for permit modifications for the other's "facility." Only one of the "bridge terms," the term concerning the flaring of gas not routed to the LFGTE operations for treatment and use as fuel, acknowledges a shared responsibility. This Part 71 permit is structured so that Source-Specific requirements (Section II) that are specific to an emission unit are grouped into unit-specific subsections (Sections II.B, II.C, and II.D), and requirements that affect multiple or all emission units are located in the Sourcewide subsection (Section II.A). Thus, the permit does not delineate how the parties must address coverage of the responsibilities of the permittee and does not prescribe circumstances under which one or the other of the parties may successfully represent the entire source in any permit-related activity or transaction. The permit does, however, delineate and prescribe requirements with which the permittee must comply.

The Part 71 permit includes updates and additions relative to the two previous Part 70 permits issued by NJDEP, as well as revisions that reflect the fact that a Part 71 permit is intended to assure compliance with federal applicable requirements and the requirements of title V, i.e., that it includes terms and conditions to assure compliance with federal applicable requirements but not state-only requirements. [32] For example, the annual and hourly emission limits for HAPs (Total), hydrogen chloride, tetrachloroethylene, and methane that were in the Part 70 permit conditions are not included in the Part 71 permit because, while these pollutants are regulated under state law requirements, there is no corresponding federal applicable requirement for

[32] An "applicable requirement" as defined in 40 CFR § 71.2 is a federal requirement; we use the term "federal applicable requirement" here to distinguish these requirements from state requirements that are not also federal requirements.

this source. EPA's Part 71 permitting action is not intended to change NJDEP's underlying authority to enforce requirements under state law and preconstruction permit requirements for this source, or any authority it has to implement federal regulations for this source (aside from the title V permitting authority).

Certain permit conditions require the submittal of documents or reporting to NJDEP, as well as to EPA. This is in conditions where NJDEP had included the requirements in the Part 70 permits and retains the authority to enforce them.

This Part 71 permit uses the authority under title V to create gap-filling monitoring, testing, recordkeeping, and reporting conditions to assure compliance with terms and conditions of the permit, including existing emission limits in the permit. The gap-filling conditions cite authorities in 40 CFR §§ 71.6(a)(3)(i)(B) and/or 71.6(c)(1), as appropriate.[33] Their use for specific conditions is explained in the sections below.

IV.A. Sourcewide

The permit conditions in the Sourcewide section of the permit apply to all emission units at this source, but predominantly to EU-L, EU-E1, and EU-E2. Compliance with many of these conditions may involve coordination between the landfill and LFGTE operations regarding normal daily operation, alternate operating scenarios, shutdowns and startups, reporting, monitoring, recordkeeping, modifications, and closures. This includes accounting for the disposition–routing and fate–of all collected landfill gas, and the times of startup and shutdown of control devices (enclosed flares, treatment systems at the LFGTE operations) and the gas collection system (vacuum system, disruption of collection piping). The following are among the requirements addressed by the sourcewide conditions:

[33] Section 504(c) of the CAA requires all title V permits to contain monitoring requirements to assure compliance with permit terms and conditions. EPA's Part 70 monitoring rules (40 CFR § 70.6(a)(3)(i)(A) and (B) and 70.6(c)(1)) must be interpreted to carry out § 504(c) of the Act's directive. *Sierra Club v. EPA*, 536 F.3d 673 (D.C. Cir. 2008). As a general matter, permitting authorities must take three steps to satisfy the monitoring requirements in EPA's Part 70 regulations. First, under 40 CFR § 70.6(a)(3)(i)(A), permitting authorities must ensure that monitoring requirements contained in applicable requirements are properly incorporated into the title V permit. Second, if the applicable requirement contains no periodic monitoring, permitting authorities must add "periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit." 40 CFR § 70.6(a)(3)(i)(B). Third, if there is some periodic monitoring in the applicable requirement, but that monitoring is not sufficient to assure compliance with permit terms and conditions, permitting authorities must supplement monitoring to assure such compliance. 40 CFR § 70.6(c)(l). *In the Matter of CITGO Refining & Chemicals Co.*, Order on Petition No. VI-2007-01 (May 28, 2009) (*CITGO Order*) at 6-7. The provisions of 40 CFR §§ 70.6(a)(3)(i)(A) and (B) and 70.6(c)(1) are analogous to provisions in Part 71, specifically 40 CFR §§ 71.6(a)(3)(i)(A) and (B) and 71.6(c)(1), and the same interpretation applies to those analogous Part 71 provisions.

- Routing of gas to flares instead of a treatment system for control
- Measuring and monitoring involving gas flow from headers
- Fuel restrictions and gas flow limits
- Periodic monitoring of H2S
- Startup, shutdown, and malfunction plans (SSM plans)
- Closure of the landfill
- No longer needing a Part 71 permit
- Other provisions applicable to both the landfill and the LFGTE emission units.

The permit conditions requiring a single, sourcewide recordkeeping log for the flow and fate of all of the collected landfill gas and the reporting of this information in the semi-annual reports are gap-filling conditions to help assure compliance with the permit conditions imposing the 40 CFR § 60.753(f) prohibition on venting raw or treated LFG to the atmosphere, and the 40 CFR § 60.753(e) requirement to shut down the gas mover system within 1 hour if the control device receiving the gas (flares or treatment systems) or if the equipment receiving the treated gas (engines at the LFGTE operations) is not working properly. This single log helps assure compliance by making it easier for the source and regulators to determine if the source is complying with those permit conditions when, as is the case for this source, the primary records of the information are records kept separately for the headers, the flares, and each set of engines and treatment system.

This Part 71 permit limits the amounts of LFG that may be used each year to fuel each set of engines and the amount of LFG that may be flared each year; and accommodates the use of both flares and engines to combust the landfill gas collected. These operating limits and conditions were already in effect under the Part 70 permits.[34] The maximum combined gas flow to the flares and to the LFGTE operations is determined by the limit on the flares,[35] which must provide 100% back-up to the LFGTE operations.[36] Since the flare limit is ≤3210 MM scf per calendar year, this is the maximum allowable fuel use for the entire source. In the Part 71

[34] These limits were set in the pre-construction permitting by NJDEP and included in the separate Part 70 permits for the landfill and the LFGTE operations.

[35] The LFG feed rate limit on the flares is from the Part 70 permit for Ocean County Landfill, which allowed both flares to operate at maximum capacity. This amount of LFG is higher than the maximum estimated gas collection rate for this landfill as modeled by the applicant for a design capacity of 13 MM Mg of waste.

[36] Since the flares must have the capacity to control all of the LFG that may be treated and used in the engines, as well as additional LFG that is beyond the capacity of the engines, the limit on flaring of the LFG is used as the sourcewide limit on LFG combustion. This is consistent with the flares serving as back-up LFG controls when the LFGTE engines and their LFG treatment systems are not operating at full capacity or are shut down entirely. This back-up function of the flares is a feature of the source's landfill gas collection and control system that contributes to the overall view of the system as well-designed, as required by 40 CFR §§ 60.759(c) and 60.752(b)(2)(iii), and serves as the foundation for the operating scenarios provided in the Part 71 application.

permit, this limit applies to both the flares and the engines. In the separate Part 70 permits, this limit appeared only in the OCLC Part 70 permit and applied only to the flares.

The conditions requiring monitoring and keeping records of the landfill gas feed rate to the portable open flare, L-01-CD11, are gap-filling conditions added to help assure compliance with the requirements to calculate and report emissions for that flare. The gap was a result of the Part 70 permit conditions that imposed an emission limit and reporting requirement for this flare without requiring the collection and recording of the information needed to calculate and then report those emissions.

The condition requiring recordkeeping for the amounts of landfill gas fueling each EU-E1 engine is a gap-filling condition added to help assure compliance with the emission limits for the individual EU-E1 engines. The gap was a result of the Part 70 permit conditions that imposed emission limits for the individual engines but only required the recording of data for the set of engines, not the individual engines. The added condition employs the approach used in the Part 70 permit for the EU-E2 engines: that is, using the electricity generation records for the individual engines along with the fuel use records for the full set of six engines to estimate each engine's fuel consumption. The calculated fuel flow for the individual engine is then used to calculate emissions from that engine for purposes of determining compliance with the emission limits on that engine.

IV.B. Landfill Emission Unit

The conditions for this emission unit, EU-L, cover the following requirements as they pertain to the emission unit:

- NSPS and NESHAP for MSW landfills for the landfill, gas collection system, and flares- requirements that are not already included in the Sourcewide subsection of the permit
- NESHAP for asbestos for the dedicated asbestos cells
- VOC RACT, opacity, and particulate emissions for the leachate treatment system boiler
- NESHAP for RICE for the four RICE generators
- NSPS for CI ICE for two of the four RICE generators
- NJ SIP Subchapter 8 minor source preconstruction limits and requirements

The source was required to submit an initial design capacity report under 40 CFR § 60.757(a). This requirement is included in the permit as part of the recordkeeping requirement for that report.

The source is required to comply with 40 CFR § 60.752(b)(2) requirements for landfill gas collection and control because the landfill's design capacity is greater than 2.5 million Mg or 2.5 MM cubic meters and its calculated NMOC emission rate is equal to or greater than 50 Mg/year.

Of the options for gas collection available under 40 CFR § 60.752(b)(2)(ii), the landfill employs active collection, 40 CFR § 60.752(b)(2)(ii)(A), wherein gas is drawn into the collection system and to the LFG controls under vacuum.

Of the options for gas control available under 40 CFR § 60.752(b)(2)(iii), the source employs enclosed flares, which are enclosed combustion devices under 40 CFR § 60.752(b)(2)(iii)(B), and gas treatment systems that process the gas for subsequent sale or use, the option under 40 CFR § 60.752(b)(2)(iii)(C).

The standard regulatory requirements for temperature, pressure, and oxygen operating limits at the gas collection system wellheads are employed in this permit.

- 40 CFR § 60.753(c) allows for exceptions, if approved, to the requirement for oxygen content less than 5% at wellheads; however, approval of higher oxygen levels would have to be requested from EPA, and, if approved, would not become the enforceable limits at specific wellheads until the title V permit is modified. The request must be accompanied by the required demonstration.
- 40 CFR § 60.753(b) allows for exceptions, if approved, to the requirement for negative pressure at wellheads; however, approval of the higher pressure limits would have to be requested from EPA, and, if approved, would not become the enforceable limits at specific wellheads until the title V permit is modified.

Since the source has not requested an exception from 40 CFR § 60.753(b) or (c), and has not submitted the required demonstration for such request for an exemption, the regulatory requirements for oxygen content less than 5% oxygen at the wellheads and negative pressure at the wellheads are the limits in effect and in the Part 71 permit.

40 CFR § 60.752(b)(2)(i)(B) provides that the collection and control system design plan shall include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of 40 CFR §§ 60.753 through 60.758 proposed by the permittee. The alternatives must be approved by EPA and the permit modified in order for the alternatives to replace the enforceable requirements in this permit. No alternatives have been approved, and none are included in the Part 71 permit.

The Part 71 permit adds a list of chemicals to the Part 70 permit requirement for quarterly sampling and chemical analysis of landfill gas from the gas collection system headers. This augmentation of the Part 70 condition is a gap-filling clarification to help assure compliance with the emission limits for the flares and LFGTE engines. The gap is a result of the Part 70 permit requirement's not specifying which pollutants to analyze in the quarterly samples and the reliance on those samples to calculate emissions of the pollutants now listed specifically in the Part 71 permit condition.

The permit also requires the reporting of emissions of H2S, benzene, tricholorethane (1,1,2-), vinyl chloride, and VOC in uncollected landfill gas, a gap-filling requirement added to help assure compliance with emission limits that include these emissions.

The four RICE generators,[37] L-03, are treated in this permit as stationary sources. Accordingly, the CI ICE NSPS at 40 CFR 60 Subpart IIII applies to the two newer engines and the RICE NESHAP at 40 CFR 63 Subpart ZZZZ applies to all four engines. The permittee asserts that these are nonroad engines and should not be treated as stationary engines for purposes of 40 CFR 63 Subpart ZZZZ (the RICE NESHAP) and 40 CFR 60 Subpart IIII (the CI ICE NSPS) applicability. This assertion is based on (1) an applicability determination made in 2008 with different facts[38] and (2) the permittee's conclusion that each time an engine is moved within the landfill, the engine is at a different location. The permittee interprets the definitions of "stationary RICE" at 40 CFR § 63.6585(a), "stationary internal combustion engine" at 40 CFR § 60.4219, and "nonroad engine" at 40 CFR § 1068.30[39] to mean that each point in the landfill constitutes a "single site" for purposes of determining "location" under Section 1068.30. Under this interpretation, engines moved to different points within the landfill during a 12-month period would not remain in the same "location" for 12 months or longer and, therefore, would not be subject to the requirements for stationary engines. EPA makes the determination of whether an engine is nonroad pursuant to 40 CFR § 1068.30 on a case-by-case basis. In this case and for purposes of this Part 71 permit, EPA views the landfill as the "location" and "single site" within the source where the engines remain for 12 months or longer. Therefore, these engines are stationary, and, as such, the applicable requirements for the RICE NESHAP and the CI ICE NSPS have been incorporated into the Part 71 permit.

For RICE NESHAP and CI ICE NSPS purposes, the L-03 RICE generators are classified as non-emergency engines at an area source of HAPs. All four L-03 engines are CI ICE with a displacement < 10 liters. The horsepower rating of each engine and the year of manufacture or purchase of the generator with which the engine is paired, the information provided in the Part 71 application, were used as the maximum power rating and the model year of each engine in determining applicable requirements. The L-03-1 and -2 generators, both with engines constructed before 6/12/2006, are

[37] The RICE generators at EU-L were identified as "emergency generators" used for portable power in the Part 71 application, and as "emergency generators" in the Part 70 permit for Ocean County Landfill, in each case without limits on the number of hours the generators may be operated.

[38] Ref: Letter from George T. Czerniak (EPA Region 5) to Owen Seltz (Minnesota Pollution Control Agency), dated 12/8/2008. Control No. M090038 in EPA's Applicability Determination Index at http://cfpub.epa.gov/adi/.

[39] Under 40 CFR § 1068.30, an internal combustion engine is not a nonroad engine if, although it would otherwise qualify as such, it remains or will remain at a location for more than 12 consecutive months. A "location," under the rule, is any single site at a building, structure, facility, or installation.

"existing" engines under the RICE NESHAP and subject to that regulation under the following classification: Existing non-emergency, non-black start CI stationary RICE ≤300 hp located at an area source of HAP. The L-03-3 and -4 generators, both with engines manufactured after 4/1/2006, are subject to the CI ICE NSPS under the following classification: Model year 2007 and later non-emergency stationary CI ICE with a displacement of < 10 liters/cylinder. Within the CI ICE NSPS, L-03-3 and L-03-4 are subject to different emission limits based on their model years and maximum engine power ratings. The L-03-3 and L-03-4 engines are subject to the RICE NESHAP, as well; however, their compliance with the CI ICE NSPS constitutes compliance with the RICE NESHAP.

For the L-03-3 and L-03-4 engines, the Part 71 permit includes gap-filling conditions for monitoring and recordkeeping to demonstrate compliance with the CI ICE NSPS fuel standards and emission standards to which they are subject. The regulation itself did not include such requirements, and the Part 70 permit for OCL did not include the CI ICE NSPS as an applicable requirement.

The Part 71 permit requires performance testing of both enclosed flares, L-01-CD1 and -CD10, for NMOC control once during the permit term to assess continued compliance with the operational/emission limit specified by the NSPS for MSW Landfills at 40 CFR § 60.752(b)(2)(iii)(B). The NSPS requires initial performance testing within 180 days of initial startup, and allows for, but does not require, subsequent re-testing. The NSPS provides continuous temperature monitoring as a surrogate for NMOC destruction efficiency monitoring, where the temperature range that ensures achievement of the required minimum destruction efficiency is established during the initial performance test of the flare. This Part 71 permit requirement for periodic re-testing has been added pursuant to 40 CFR § 71.6(a)(3)(i)(B), to provide reliable information sufficient to represent the source's compliance with the permit terms over the life of the permit. It addresses the possibility that, over time, factors affecting operation and performance of the flares may vary in ways that alter the source's achievement of the required NMOC destruction efficiency even as the temperature operating range established during the initial performance testing is maintained.

This permit includes stack testing for the enclosed flares once during the permit term with additional assurances of compliance with emission limits afforded through (a) the continuous monitoring of temperature at the exit of the combustion section of the flare and the temperature alarm if the measured temperature falls below the minimum required operating temperature, (b) the requirement that the flare is designed for a minimum residence time of 0.5 seconds, (c) the smokeless design of the flares and their operation with no visible emissions, (d) the continuous monitoring of LFG flow to each flare and quarterly measurement of CH4 content of the LFG, and (e) EPA's reservation of the right to additional stack testing if necessary.

Both flares are to be stack-tested once during the permit term to provide emission factors for CO, NOx, PM10, and VOC for use in determining compliance with emission limits. The Part 70 permit for Ocean County Landfill did not require stack testing for these pollutants, but did include emission limits pursuant to NJAC 7:27-8. This stack-testing is a gap-filling condition to help assure compliance with emission limits by providing accurate emission factors for the two flares operating at the low end of the range of LFG feed rates for which the flares were designed or adjusted. The low LFG feed rates to the flares are expected during normal operation, i.e., when both sets of the LFGTE engines are operating at their full capacities.

The limits on sulfur content of fuel have been updated to reflect the current version of the EPA-approved regulations in the NJ SIP. The leachate treatment system boiler and the storage tanks and small combustion heaters listed as insignificant sources at the landfill are subject to this requirement. No demonstration has been received regarding potential paths under NJAC 7:27-9.2 (c), (d), and (e) to exemption from this requirement, and thus EPA is not providing an exemption.

The option in the Part 70 permit for the landfill to use treated landfill gas to fuel the boiler for the leachate treatment system has been eliminated in the Part 71 due to lack of adequate monitoring of the treatment system for proper operation. Without such monitoring, the gas cannot be regarded as "treated" and, thus, the treatment system does not qualify as a landfill gas control under the NSPS. While the boiler has the technical capacity to be used as the landfill gas control if it is operated so as to meet the requirements for NMOC destruction as required by the NSPS, the permittee has elected not to monitor the boiler consistent with those requirements for landfill gas controls. Thus, the Part 71 permit restricts the leachate treatment system boiler to fuel oil as its only fuel, and does not allow it to be fueled by landfill gas.

The storage tanks IS-L-01, -02, -04, and -05, which store diesel fuel or #2 fuel oil, are below the threshold size for preconstruction permitting under NJAC 7:27-8. Neither diesel fuel nor #2 fuel oil is viewed by NJDEP as meeting the NJAC 7:27-8 definition of "volatile organic substances" (VOS). The Part 71 permit includes conditions from the Part 70 permit that restrict these tanks to operating at levels below the threshold for preconstruction permitting.

The combustion heaters IS-L-03, each <1 MMBtu/hr, are below the threshold for commercial fuel-burning equipment subject to NJAC 7:27-8 preconstruction permitting.

The aerobic leachate treatment tanks IS-L-06 are below the threshold for waste or water treatment equipment subject to NJAC-7:27-8 permitting. Under NJAC 7:27-8, when the concentration of toxic substances listed in NJAC 7:27-17.3, Table 1, in the influent material is <100 ppb and the VOS concentration is <3500 ppb, the permitting requirements do not apply. Some of the chemicals that NJDEP classifies as toxic substances and/or VOS in its regulations are VOC. The Part 70 permit included

conditions that restricted these tanks to operating at levels below the threshold for preconstruction permitting. Of those Part 70 permit conditions, the Part 71 permit includes the conditions that pertain to chemicals that are VOC.

The Part 71 permit also includes requirements pertaining to the sulfur content of the fuel for IS-L-01 through -06, and for opacity and visible emissions from IS-L-03.

IV.C. LFGTE Operations

The conditions for the LFGTE operations, comprised of emission units EU-E1 and EU-E2, cover the following requirements as they pertain to these emission units:

- NSPS and NESHAP for MSW landfills for treatment systems as LFG controls
- NESHAP for RICE as applicable to the 12 engines
- PSD for EU-E2
- Nonattainment NSR for EU-E1 and EU-E2
- NJ SIP Subchapter 8 minor source preconstruction limits and requirements

This permit includes stack testing for each of the LFGTE operation engines once during the permit term with additional assurances of compliance with emission limits afforded through (a) monthly monitoring for NOx, CO, and O2; (b) opacity observations; (c) operation and maintenance of the engines in accordance with the RICE NESHAP requirements; (d) annual adjustment of combustion in accordance with NOx RACT and VOC RACT requirements; and (e) EPA's reservation of the right to additional stack testing if necessary.

The conditions for NOx RACT in the Part 70 permit for MRPC Holdings provided the more stringent levels to which the NOx RACT limits would decrease on or after March 7, 2007, under NJAC 7:27-19.8(e). Accordingly, those conditions have been updated to reflect the NOx RACT limits in effect at the time of issuance of this Part 71 permit; and the outdated portions and limits in those Part 70 permit conditions have been removed. Beginning on March 7, 2007, NOx RACT emission limits changed for both the EU-E1 and the EU-E2 sets of engines. For the EU-E1 engines, NOx RACT decreased from NOx (Total) $\leq$ 2.5 grams/brake horse power hour (g/bhp-hr) to $\leq$1.5 g/bhp-hr. For the EU-E2 engines, which commenced operation at the source after March 7, 2007, the NOx RACT limit changed from NOx (Total) $\leq$ 1.5 g/bhp-hr to $\leq$ 0.90 g/bhp-hr. The NOx emission limits set pursuant to nonattainment NSR in the preconstruction permits for each set of engines are lower than the NOx RACT limits and in addition to the NOx RACT limits. (The nonattainment NSR NOx limits for each of the EU-E1 and each of the EU-E2 engines are, respectively, NOx (Total) $\leq$ 1 g/bhp-hr and NOx (Total) $\leq$ 0.5 g/bhp-hr.)

Monthly monitoring of the EU-E2 engines was required in the Part 70 permit for assuring compliance with nonattainment NSR and PSD emission limits for NOx, CO, and O2. This Part 71 permit requires the permittee to apply the same monitoring to the EU-E1 engines. The addition of this monitoring for the EU-E1 engines is a gap-

filling requirement for assuring compliance with the NJ SIP Subchapter 8 emission limits for NOx and CO. In addition, the Part 71 permit includes an opportunity to decrease the frequency of the monthly monitoring to quarterly monitoring, and defines what constitutes a deviation under this monitoring. The revised permit condition (a) requires monthly monitoring of NOx, CO, and O2 on both the EU-E2 and EU-E1 engines; (b) allows the permittee to apply for a permit modification to reduce the monthly monitoring for NOx, CO, and O2 to once per quarter monitoring if measurements show consistent compliance with the permit limits; and (c) defines what constitutes a deviation under this monitoring. This monthly monitoring is periodic monitoring in view of the concern for deterioration of engine performance within the 5-year permit term due to the harshness of LFG as a fuel when, as is the case for these engines, sulfur and silicon-containing compounds are not removed from the LFG prior to combustion.

The Part 71 permit requires once during the permit term stack testing of the EU-E1 engines for NOx, CO, VOC, Particulate Emissions, and PM10 to assess compliance with emission limits; includes recordkeeping and reporting for the measurements; and requires the stack test protocol developed for the EU-E2 engines to include stack testing of the EU-E1 engines. This addresses a gap in the information needed to assess compliance with the emission limits for the EU-E1 engines. In addition, the Part 71 permit includes PM2.5 among the pollutants to be measured during the stack testing of the EU-E2 engines, filling the gap between the emission limit for PM2.5 and the need to assess compliance with the emission limit.

The EU-E2 engines recordkeeping condition that specified a set of values for the emission factors to be used in calculating tons per year emission rates has been updated to require that the most recent emission factors be used in the calculations.

The Part 71 permit adds conditions specifically requiring the monitoring, recordkeeping, and reporting of the electricity in kW-hr contributed by each EU-E1 and EU-E2 engine-generator set to the total output for the set of engines of which it is a member. The Part 70 permit included various requirements for which flow rate to individual engines was needed to calculate emissions, but the monitoring of flow rate to individual engines was not required. The kW-hr data for each engine-generator set are data maintained by the LFGTE operations, apart from the requirements of its title V operating permit. The requirement in this Part 71 permit to monitor and keep records of this information is a gap-filling measure to assure compliance with permit emission limits. There are two conditions from the Part 70 permit that specifically require the use of the kW-hr information to apportion total fuel flow for the engine set to an individual engine: one is a monitoring condition that requires the calculation of SO2 lb/hr emissions from individual EU-E2 engines, and the other is a recordkeeping condition for gas flow to each EU-E2 engine. The kW-hr information may be used in other calculations where its use is not prescribed in the permit conditions. With the additional reporting condition, the permittee must report kW-hr information that has been used to calculate emissions and indicate whether the engine performance was

normal for the period for which this kW-hr information is to represent fuel use by the engine.

The Part 71 permit requires stack testing for formaldehyde emissions from each of the EU-E1 and EU-E2 engines within 180 days of permit issuance. This has been added to ascertain whether the source is a major source of HAPs as a result of formaldehyde emissions at rates higher than HAP emissions provided in the Part 71 permit application. Available emission factors indicate that uncontrolled emissions from combustion of landfill gas in the CAT 3520 and CAT 3516 series of engines generally contain amounts of formaldehyde that would render this source a major source of HAPs.[40, 41] Pursuant to 40 CFR §§ 63.6600 and 63.6602 and other requirements of the RICE NESHAP, a change in status to a major source of HAPs would result in different applicable requirements for all of the RICE engines at the source, now permitted as an area source of HAPs.

The above-ground storage tanks IS-E1-01, IS-E1-02, IS-E2-01, and IS-E2-02, which store either new lube oil or waste oil, are below the threshold size for preconstruction permitting under NJAC 7:27-8. Neither the new lube oil nor the waste oil is viewed by NJDEP as meeting the NJAC-7:27-8 definition of VOS.

IV. D. Transfer Station/Materials Recovery Operations

The conditions for this emission unit, EU-R, cover the following requirements as they pertain to the emission unit:

- NJ SIP requirements for opacity, dust collector and carbon adsorption material in the building's air handling units, visible emissions
- NJ SIP requirements for hours of operation, waste handling limits, contaminated soils, and deliveries
- NJ SIP Subchapter 8 minor source preconstruction limits and requirements.

The PM10 and PM2.5 emission limits, and one of the PM emission limits for the TS/MR operations are based on calculations provided in the preconstruction permit application. The calculations in the application are used in this permit to satisfy the

[40] Letter dated 9/15/2014 from G.V. Hellwig and R.H. Colby, co-chairs of the National Association of Clean Air Agencies Air Toxics Committee, to EPA. Submittal of comments to Docket ID No. EPA-HQ-OAR-2014-0451 for the Advanced Notice of Proposed Rulemaking for Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills that was published in the *Federal Register* on July 17, 2014 (79 *Federal Register* 41772). This letter includes an attachment with links to documents providing test results at facilities in six states, including the results of stack testing for CAT 3520 engines burning landfill gas at a facility in New Jersey.

[41] A PSD permit application dated 6/12/2013, prepared by Derenzo and Associates, Inc., for Sarasota Energy, LLC, for a facility in Florida. "Prevention of Significant Deterioration Air Construction Permit Application for a Landfill Gas Fueled Reciprocating Internal Combustion Engine Electricity Generation Facility at the Central County Solid Waste Disposal Complex."

requirement that emissions be "monitored by calculation once initially." The calculations are based on an emission factor for pounds of PM, PM10, or PM2.5 emitted per ton of material processed, the tons/year of material processed, and the control efficiency of the filters on the TS/MR building. The permit also includes a PM emission limit of 2.57 lb/hr that is based on NJAC 7:27-6.2 and is less stringent than the 2.385 lb/hr limit described above.

IV. E. General Requirements

This section of the permit consists of standard requirements for Part 71 permits regarding the following: general requirements for recordkeeping, reporting, a compliance schedule, emissions trading and operational flexibility, chemical accident prevention stratospheric ozone and climate protection, and asbestos removal and disposal.

IV. F. Part 71 Administration Requirements

This section of the permit consists of standard Part 71 conditions regarding the following: initial and annual fee payments, annual emission inventory, compliance requirements, compliance certifications, duty to provide and supplement information, submissions, severability, permit actions, administrative permit amendments and permit modifications, reopening for cause, property rights, inspection and entry, transfer of ownership or operations, off permit changes, and permit expiration and renewal.

V. ATTACHMENTS

There are no attachments to this permit at the time of its issuance.