

**NORTH CAROLINA DIVISION OF  
AIR QUALITY**

**Application Review**

**Issue Date:**

**Region:** Mooresville Regional Office  
**County:** Cabarrus  
**NC Facility ID:** 1300110  
**Inspector's Name:** Melinda Wolanin  
**Date of Last Inspection:** 10/28/2020  
**Compliance Code:** 3 / Compliance - inspection

<b>Facility Data</b>	<b>Permit Applicability (this application only)</b>
<p><b>Applicant (Facility's Name):</b> BFI Waste Systems of North America, CMS Landfill V</p> <p><b>Facility Address:</b>                  BFI Waste Systems of North America, CMS Landfill V                  5105 Morehead Road                  Concord, NC 28027</p> <p><b>SIC:</b> 4953 / Refuse Systems  <b>NAICS:</b> 562212 / Solid Waste Landfill</p> <p><b>Facility Classification: Before:</b> Title V      <b>After:</b> Title V  <b>Fee Classification: Before:</b> Title V      <b>After:</b> Title V</p>	<p><b>SIP:</b> 15A NCAC 02D. 0513, .0516, .0521, .0524, .1100, .1111, .1806, .1700, and 02Q .0317 for 02D .0530</p> <p><b>NSPS:</b> 40 CFR Part 60 Subpart III  <b>NESHAP:</b> 40 CFR Part 63 Subpart AAAA, ZZZZ, GACT CCCCCC</p> <p><b>PSD:</b> N/A  <b>PSD Avoidance:</b> Yes, for CO  <b>NC Toxics:</b> Yes (re-evaluation)  <b>112(r):</b> N/A  <b>Other:</b> N/A</p>

<b>Contact Data</b>			<b>Application Data</b>
<b>Facility Contact</b>	<b>Authorized Contact</b>	<b>Technical Contact</b>	<p><b>Application Number:</b> 1300110.20A  <b>Date Received:</b> 06/19/2020  <b>Application Type:</b> Renewal  <b>Application Schedule:</b> TV-Renewal</p> <p style="text-align: center;"><b>Existing Permit Data</b></p> <p><b>Existing Permit Number:</b> 08612/T13  <b>Existing Permit Issue Date:</b> 05/02/2016  <b>Existing Permit Expiration Date:</b> 04/30/2021</p>
Mike Gurley Environmental Manager (704) 782-2004 5105 Morehead Road Concord, NC 28027	Rob LaTourette General Manager (704) 712-8560 5105 Morehead Road Concord, NC 28027	Mike Gurley Environmental Manager (704) 782-2004 5105 Morehead Road Concord, NC 28027	

**Total Actual emissions in TONS/YEAR:**

CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2019	2.61	3.33	23.83	12.11	0.7600	7.59	2.70 [Toluene]
2018	6.04	7.05	29.02	29.19	1.72	9.63	3.29 [Toluene]
2017	7.45	8.65	29.97	37.89	2.12	9.61	3.22 [Toluene]
2016	7.41	7.95	27.27	35.91	1.93	8.67	2.90 [Toluene]
2015	8.46	9.60	26.99	39.54	2.40	9.31	3.05 [Toluene]

<p><b>Review Engineer:</b> Massoud M. Eslambolchi</p> <p><b>Review Engineer's Signature:</b>                      <b>Date:</b></p>	<p style="text-align: center;"><b>Comments / Recommendations:</b></p> <p><b>Issue:</b> 08612/T14  <b>Permit Issue Date:</b>  <b>Permit Expiration Date:</b></p>
--	---

## **I. Purpose of Application – TV Renewal**

The Charlotte Motor Speedway Solid Waste Landfill (CMS landfill), located at 5105 Morehead Road in Concord, Cabarrus County, NC, is owned and operated by BFI Waste Systems of North America, LLC. This Renewal application (1300110.20A) was received on June 19, 2020, or at least six months prior to the expiration date and was considered complete on that date. Therefore, the existing permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of the existing permit shall remain in effect until the renewal permit has been issued or denied. This application proposes no modification to source operations as permitted.

## **II. Facility Description**

The CMS landfill is an active municipal solid waste (MSW) landfill. Their lined Subtitle D site began accepting waste in 1992 and currently receives approximately 975,000 tons of MSW per year. Collected landfill gas (LFG) is primarily directed to separately-owned and operated LFG-fueled turbines to generate electric power, which has a separate Title V air quality permit.

## **III. History/Background/Application Chronology**

May 02, 2016	Last renewal permit was issued.
June 19, 2020	Application for permit renewal was received by Mooresville Regional Office (MRO).
June 22, 2020	DAQ sent an acknowledgment letter stating complete application was received for permit renewal.
November 28, 2020	Date of the most recent compliance inspection conducted by MRO – Compliance was indicated.
June 16, 2021	Incorporated comments from peer review.
July 16, 2021	Included revised 15 NCAC 02D .1700 provisions and requirements (replacing NSPS WWW)
September 17, 2021	A draft permit and permit review were sent to Mr. Booker Pullen of DAQ for review.
September 29, 2021 & October 8, 2021	Mr. Pullen reviewed the draft and returned with comments. Drafts revised.
October 15, 2021	Draft sent to SSCB and MRO for review and comment. No comments from SSCB and MRO.
October 15, 2021	A draft permit and permit review were sent to Responsible Official for review opportunity.
November 02, 2021	Facility commented on applicability of 2D .1700 in lieu of NSPS WWW. It was explained that requirements of 02D .1700 are of the same as NSPS WWW for existing sources and that the revised rule takes place in place in lieu of the subject NSPS WWW for this landfill source operation.
XXXX, 2021	A draft permit and the permit review are sent to be published for the public review. A copy of the documents will be also sent to the EPA review.
XXXX, 2021	Public comment period ended with no comments.
XXXX, 2021	EPA comment period ended with no comments.

#### **IV. Insignificant Sources**

The following sources continue to be insignificant activities because of "size or production rate" which means any activity whose emissions would not violate any applicable emissions standard and whose potential emission of particulate, sulfur dioxide, nitrogen oxides, volatile organic compounds, and carbon monoxide before air pollution control devices, are each no more than five tons per year and whose potential emissions of hazardous air pollutants before air pollution control devices, are each below 1000 pounds per year.

Insignificant Activities per 15A NCAC 02Q .0503(8)

<b>Source ID No.</b>	<b>Emission Source Description</b>
IES-GT <b>GACT CCCCCC</b>	Gasoline storage tank (dispensing facility for landfill mobile equipment, 1,000 gallon capacity)
IES-2 <b>GACT ZZZZ</b>	Diesel fuel-fired emergency generator (150 kW)
IES-3	Leachate storage pond
IES-4 <b>GACT ZZZZ</b>	Diesel fuel-fired emergency generator (250 kW)
IES-5 <b>GACT ZZZZ</b>	Diesel fuel-fired emergency generator (250 kW)
IES-6 <b>GACT ZZZZ</b>	Diesel fuel-fired emergency generator (250 kW)
IES-7 NSPS III, <b>GACT ZZZZ</b>	Diesel fuel-fired emergency generator (500 kW)
IES-DT2	Diesel storage tank (10,000 gallon capacity)
IES-DT3	Diesel storage tank (10,000 gallon capacity)
IES-DT4	Diesel storage tank (10,000 gallon capacity)

- Because an activity is exempted from being required to have a permit or permit modification does not mean that the activity is exempted from an applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement.
- When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 2D .1100 "Control of Toxic Air Pollutants" or 2Q .0711 "Emission Rates Requiring a Permit."
- For additional information regarding the applicability of MACT or GACT see the DAQ page titled "Specific Permit Conditions Regulatory Guide." The link to this site is as follows: <http://deq.nc.gov/about/divisions/air-quality/air-quality-permits/specific-permit-conditions-regulatory-guide>.

## **V. Summary of Changes**

The following changes were made to the existing Air Permit No. 08612T13

<b>Page(s)</b>	<b>Section</b>	<b>Description of Changes</b>
Cover and throughout	-	Updated all dates and permit revision numbers, and EPA Region 4 contact name
Attachment 1	-	Updated footnote 3 for Specific Conditions Regulatory Guide access link
4	2.1.A.3	Added 15A NCAC 02D .1700 (amended); in lieu of NSPS WWW
4	2.1.A.3	Removed NSPS WWW conditions as updated by 02D .1700
7	2.1.A.4	Added MACT AAAA amended provisions for alternative SSM requirements.
9	2.1.A.4.k	Added updates to Operational Standards for Collection and Control Systems (amended MACT AAAA).
10-14	2.1.A.4.1-w	Updated Compliance Provisions, Test Method Procedures and Monitoring requirements (amended MACT AAAA).
14-20	2.1.A.4.x-nn	Updated Recordkeeping and Reporting requirements (amended MACT AAAA).
20	2.2.B	Moved 15A NCAC 02D .1806 to the end of the section.
21	3	Updated General Conditions section to version 5.5 (8/25/2020)

## **VI. Permit Renewal and Updates to TVEE Discussion**

The renewal application as submitted proposes no addition or changes to any of the existing equipment and control devices line-up. TVEE will be updated as necessary prior to final action.

## **VII. Regulatory Review**

**Municipal Solid Waste Landfill (ID No. ES-1):** Landfill gases from this municipal solid waste landfill source (ID No. ES-1) controlled by a gas collection system (ID No. CD-GCCS1), one gas treatment system (ID No. CD-Treatment), one landfill gas-fired enclosed flare (ID No. CD-FLARE2) and one landfill gas-fired utility flare (ID No. CD-FLARE3) are subject to the following regulations. The permit will be updated to reflect the most current stipulations for all applicable regulations.

### **15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**

Sulfur dioxide emissions from any source of combustion that is discharged from any vent, stack, or chimney shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

The enclosed flare (ID No. CD-FLARE2) and the utility flare (ID No. CD-FLARE3) are both subject to this rule because they each is a source of combustion discharging sulfur dioxide into the atmosphere due to the combustion of landfill gas.

Potential emissions of sulfur dioxide are expected to be well below the allowable emissions when burning landfill gas because the sulfur content is negligible. Compliance is indicated.

No monitoring, recordkeeping, testing or reporting is required for sulfur dioxide emissions from enclosed flare or the utility flare when firing landfill gas.

**15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS**

The flares (ID Nos. CD-FLARE2 and 3) were installed after July 1, 1971, and therefore are subject to 15A NCAC 2D .0521(d). Per this regulation visible emissions shall not be more than 20 percent opacity when averaged over a six-minute period except that six-minute periods averaging more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period.

Compliance is indicated with this regulation because the firing of landfill gas under normal operation will have negligible visible emissions.

No monitoring, recordkeeping, testing or reporting is required for visible emissions from the flares (ID No. CD-FLARE2 and 3) while firing landfill gas. Compliance with this rule is expected.

**15A NCAC 02D .1700 Municipal Solid Waste Landfill**

This landfill is subject to the revised regulation under 15A NCAC 02D .1700 which is applicable to any existing MSW that accepted waste since November 8, 1987, and that commenced construction, reconstruction, or modification on or before July 17, 2014. The CMS facility has been issued construction permits for lateral expansions of the landfill, but all began construction prior to July 17, 2014 as of the date of this Renewal.

This facility is subject to Title V permitting because the design capacity of the landfill is greater than 2.5 million megagrams (2.75 million tons) by mass and 2.5 million cubic meters by volume.

Each owner or operator of a MSW landfill meeting the conditions of 15A NCAC 02D .1703(a) shall collect and control the gas from the landfill using:

- a non-enclosed flare designed and operated in accordance with the parameters established in 40 CFR 60.18 except as noted in 40 CFR 60.37f(d);
- a control system designed and operated to reduce NMOC by 98 weight percent; or when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at three percent oxygen or less, or
- route the collected gas to a treatment system that processes the collected gas for subsequent sale or beneficial use such as fuel for combustion, production of vehicle fuel, production of high-Btu gas for pipeline injection, or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas shall be controlled.

This facility has a control system that consists of a gas collection and control system (CD-GCCS1) with one enclosed flare (CD-FLARE2, 6000 scfm gas flow rate, 180 million Btu per hour heat input capacity), one utility flare (CD-FLARE3, 3000 scfm gas flow rate, 90 million Btu heat input), and one landfill gas treatment system (CD-Treatment).

The heat input capacity of the landfill gas is assumed to be 500 Btu per cubic foot landfill gas. An example rating calculation on the enclosed flare is as follows:

$$\frac{6000 \text{ ft}^3}{\text{minute}} \times \frac{500 \text{ Btu}}{\text{ft}^3} \times \frac{60 \text{ minutes}}{\text{hour}} \times \frac{1 \text{ million Btu}}{1,000,000 \text{ Btu}} = \frac{180 \text{ million Btu}}{\text{hour}}$$

Continued compliance with 15A NCAC 02D .1700 is expected.

**(State-enforceable only)**

**15A NCAC 02D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS**

The Permittee shall not operate the facility without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary.

#### **NESHAP**

**15A NCAC 02D .1111, 40 CFR Part 63, MACT Subpart AAAAA** – The CMS landfill as permitted is an affected source under MACT AAAAA, “Municipal Solid Waste Landfills,” because it has a design capacity equal to or greater than 2.5 million Mg and 2.5 million m<sup>3</sup>, and has estimated uncontrolled NMOC emissions equal to or greater than 50 Mg/yr. The landfill gas collection and control system and the associated control devices are required for the purposes of compliance with 40 CFR 63, Subpart AAAAA.

Subpart AAAAA was revised in September 2020, and includes various updates (i.e. operational standards, SSM provisions, monitoring, recordkeeping and reporting requirements). Table of changes summary lists the compliance sections which reflect these revised requirements. Continued compliance with this regulation is expected.

#### **15A NCAC 02D .1111 40 CFR Part 63, GACT Subpart CCCCCC**

The gasoline storage tank (ID No. IES-GT) is subject to 40 CFR 63, Subpart CCCCCC “Gasoline Dispensing Facilities” since the facility is an area source of HAPs, and the facility meets the definition of a gasoline dispensing facility as any stationary facility which dispenses gasoline into the tank of a motor vehicle, motor vehicle engine, nonroad vehicle, or nonroad engine, including a nonroad vehicle or nonroad engine used solely for competition. Gasoline storage tanks are listed as affected sources under §63.11111(a), and there are no size distinctions.

Since IES-04B is an insignificant activity, there is no permit condition, however the facility is still required to comply with Subpart CCCCCC. The facility has the general duty to minimize emissions by operating and maintaining affected sources, and their associated air pollution control and monitoring equipment, in a manner consistent with safety and good air pollution practices for minimizing emissions. In addition, since the facility's throughput is expected to be less than 10,000 gallons per month based on throughput reported on the facility's annual AQEI, the facility is subject to the requirements of §63.11116.

This section states that the facility must handle the gasoline in a manner which will not result in vapor release to the atmosphere for an extended period of time. Measures to be taken include, but are not limited to:

- Minimize gasoline spills;
- Clean up spills as expeditiously as practicable;
- Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use; and
- Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices.

There are no notification or reporting requirements for facilities with a throughput of less than 10,000 gallons per month, however, the facility shall supply records of gasoline throughput within 24 hours of a request by DAQ. Additionally, should the facility's monthly gasoline throughput exceed 10,000 gallons, the facility will be subject to the requirements of §63.11117 for facilities with a monthly throughput of 10,000 gallons of gasoline or more, or §63.11118 for facilities with a monthly throughput of 100,000 gallons of gasoline or more, whichever is applicable, and must meet the applicable notification, testing, monitoring, recordkeeping, and reporting requirements. If an affected source's throughput ever exceeds an applicable throughput threshold, the affected source will remain subject to the requirements for sources above the threshold, even if the affected source throughput later falls below the applicable source threshold. [§63.11111(i)]

#### **NSR/PSD, 112(r), CAM**

- NSR/PSD: All of the criteria pollutants emitted by this facility are less than the 250 significance level except carbon monoxide (CO). The facility has opted for 02Q .0317, Avoidance Condition for 02D .0530, Prevention of Significant Deterioration for Carbon Monoxide to remain as a PSD minor facility. This facility currently has an enclosed flare and a utility flare onsite. The emission factors used to evaluate the emissions from each flare is now different than when the facility only had enclosed flares. The flow limit listed in the previous permit will

be removed and the monthly calculation will be used solely to measure the emissions from both flares and the small contribution (if any) from the five emergency generators to monitor against the 250 ton per year, 12 month rolling average for the avoidance condition.

Calculation of the uncontrolled carbon monoxide emissions from the two flares:

Vendor emission factor for enclosed flare (CD-FLARE2): 0.2 lbs CO/million Btu heat input  
 AP-42 emission factor for utility flare (CD-FLARE3): 0.37 lbs CO/million Btu heat input  
 Maximum heat input from the two flares: 180 million Btu/hour (CD-FLARE2) + 90 million Btu/hour (CD-FLARE3) = 270 mmBtu/hour

15A NCAC 2Q. 0317: AVOIDANCE CONDITIONS 15A NCAC 2D. 0530: PREVENTION OF SIGNIFICANT DETERIORATION

$$CD - FLARE2 = \frac{0.2 \text{ lbs CO}}{\text{million Btu}} \times \frac{180 \text{ million Btu}}{\text{hour}} \times \frac{8760 \text{ hours}}{\text{year}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} = \frac{157.68 \text{ tons CO}}{\text{year}}$$

$$CD - FLARE3 = \frac{0.37 \text{ lbs CO}}{\text{million Btu}} \times \frac{90 \text{ million Btu}}{\text{hour}} \times \frac{8760 \text{ hours}}{\text{year}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} = \frac{145.85 \text{ tons CO}}{\text{year}}$$

Total CO emissions from the two flares = 303.53 tons CO/year

Emergency generators @ 500 hours per year (per EPA guidance from 1995 John Seitz memo)

AP-42 emission factor for small engines (less than 500 hp) =  $6.96 \times 10^{-3}$  lb CO/hp-hour

AP-42 emission factor for large engines (greater than 500 hp) =  $5.5 \times 10^{-3}$  lb CO/hp-hour

Sample calculation using AP-42 emission factors for small and large engines:

IES-2 at 150 kW (201 hp):	0.35 tons CO/yr
IES-4 at 250 kW (335 hp):	0.58 tons CO/yr
IES-5 at 250 kW (335 hp):	0.58 tons CO/yr
IES-6 at 250 kW (335 hp):	0.58 tons CO/yr
IES-7 at 500 kW (670.5 hp):	1.17 tons CO/yr
<u>Total tons per year:</u>	<u>3.26 tons CO/yr</u>

303.58 tons CO/yr (both flares) + 3.26 tons CO/year (emergency generators) = 306.79 tons CO/year

The flowrates to the individual flares and the operation of the emergency engines will have to be monitored from the facility to ensure that the emissions of CO from these sources does not exceed 250 tons per 12 month rolling average. The following equation will be placed in the permit to calculate the monthly emissions.

$$X = \left( \frac{Y \text{ ft}^3 \text{ lfg}}{\text{month}} \times \frac{0.20 \text{ lbs CO}}{10^6 \text{ Btu}} \times \frac{500 \text{ Btu}}{\text{ft}^3 \text{ lfg}} \times \frac{1 \text{ ton CO}}{2000 \text{ lbs}} \right) + \left( \frac{Z \text{ ft}^3 \text{ lfg}}{\text{month}} \times \frac{0.37 \text{ lbs CO}}{10^6} \times \frac{500 \text{ Btu}}{\text{ft}^3 \text{ lfg}} \times \frac{1 \text{ tons CO}}{2000 \text{ lbs}} \right) + A$$

- Where: X = total monthly emissions of carbon monoxide (both flares)  
 Y = total monthly average landfill gas (lfg) flow rate into enclosed flare CD-FLARE2 (ft<sup>3</sup>/month)  
 Z = total monthly average landfill gas (lfg) flow rate into utility flare: CD-FLARE3 (ft<sup>3</sup>/month)  
 A = Constant value of 0.27 tons CO/month for the emergency generators at 500 hours per year  
 Heating value of landfill gas (lfg) = 500 Btu/ft<sup>3</sup>  
 Vendor emission factor = 0.20 lbs CO/million Btu (enclosed flare, CD-FLARE2)  
 AP-42 emission factor = 0.37 lbs CO/million Btu (utility flare, CD-FLARE3)

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the CO emissions are not monitored and recorded.

Calculations and the total amount of CO emissions shall be recorded monthly in a logbook (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the CO emissions exceed this limit.

The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:

- The monthly CO emissions for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months.

**Where:** X = total monthly emissions of carbon monoxide (flares and engines)  
Y = total monthly average LFG flow rate to the enclosed flare (scfm)  
Z = total monthly average LFG flow rate to the utility flare (scfm)  
Heating value of LFG = 500 Btu/ft<sup>3</sup>  
Vendor emission factor = 0.20 lbs CO/million Btu for CD-FLARE2  
AP-42 emission factor = 0.37 lbs CO/million Btu for CD-FLARE3  
Carbon monoxide emissions from emergency generators (five each) = 0.27 tons CO/month  
(3.26 tons CO/year maximum divided by 12 months per year)

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the CO emissions are not monitored and recorded.

Calculations and the total amount of CO emissions shall be recorded monthly in a logbook (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the CO emissions exceed 250 total tons per 12 month rolling average.

The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:

The monthly CO emissions for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months;

- **112(r):** This facility does not store any applicable substance greater than the regulatory threshold rate. Section 112(r) does not apply.
- **CAM:** The Renewal application proposes no changes to the equipment and their operations, and no increases in emissions of the air pollutants. This facility is not subject to Compliance Assurance Monitoring (CAM) in accordance with 15A NCAC 02D .0614(b) "Exemptions" because it is subject to a New Source Performance standard (NSPS) and a Maximum Achievable Control Technology that was proposed after November 15, 1990, pursuant to section 111 or 112 of the federal Clean Air Act.

**Facility-Wide Air Toxics:** In a previous Renewal approval process, the facility requested the removal of the air toxic conditions per G.S. 143-215.107(a) and 15A NCAC 2Q .0702(a)(27). This landfill is subject to MACT Subpart AAAA, *NESHAP for Municipal Solid Waste Landfill*, and the 5 generators (insignificant sources IES-2, IES-4, IES-5, IES-6 and IES-7) are subject to MACT Subpart ZZZZ, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*. North

Carolina GS. 143-215.107(a) exempts emission sources subject to MACT standards from NC air toxics regulations provided their emissions do not “present an unacceptable risk to human health.”

A toxic risk evaluation and modeling was also conducted under the T13 (issued in May 2016) renewal review process to evaluate the health risk associated with the emissions of air toxic pollutants. The air toxic modeling result is summarized in the table below indicating the percentage of Acceptable Ambient Level (AAL) of each pollutant based on the maximum emissions from the facility.

Pollutant	Averaging Period	Emission rate	% of AAL
Benzene	Annual	211.10 lbs per year	47%
Ethyl mercaptan	1-hour	0.027 lbs per hour	Less than 1 %
Hydrogen chloride	1-hour	2.07 lbs per hour	Less than 1 %
Hydrogen sulfide	24-hour	52.14 lbs per 24-hours	2%
Methyl mercaptan	1-hour	0.02 lbs per hour	Less than 1 %
Vinyl chloride	Annual	199.10 lbs per year	3%

There have been no increases in emissions from the landfill since the last evaluation and this renewal application is proposing no increase in emission rates from the subject sources which could result in increases to the facility’s modeled emission limits. Therefore, it is expected that the subject source operations will not pose an unacceptable risk to human health.

**Compliance Status:** Compliance records for this facility indicate no recent violations. The most recent inspection report by Mooresville Regional Office (MRO) indicates that the facility demonstrated compliance with all applicable requirements.

### **VIII. Public Notice/EPA and Affected State(s) Review**

A notice of the DRAFT Title V Permit shall be made pursuant to 15A NCAC 2Q .0521. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. The US EPA will also be given a 45-day review period. Copies of the public notice shall be sent to persons on the Title V mailing list and the EPA. Pursuant to 15A NCAC 2Q .0522, a copy of each permit application, each proposed permit and each final permit pursuant shall be provided to EPA.

### **IX. Other Regulatory Considerations**

A P.E. seal is NOT required for this renewal application.

A zoning consistency determination is NOT required for this renewal application.

Although the minor source baseline dates for PM10 and SO2 have been triggered in Cabarrus County, no increase in potential emissions are expected from this renewal of the permit.

### **X. Recommendations**

The renewal application for BFI Waste Systems of North America, Charlotte Motor Speedway Solid Waste Landfill located in Concord, Cabarrus County, NC has been reviewed by DAQ to determine compliance with all procedures and requirements. DAQ has determined that this facility is complying or will achieve compliance, as specified in the permit, with all requirements that are applicable to the affected sources. The DAQ recommends the issuance of Air Permit No. 08612T14.