

# Fact Sheet



## For Final Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-03900461-2021**  
Application Received: **04/20/2020**  
Plant Identification Number: **039-00461**  
Permittee: **City of Charleston**  
Facility Name: **City of Charleston Sanitary Landfill**  
Mailing Address: **P. O. Box 2749, Charleston, WV 25330**

Revised: *N/A*

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Physical Location: Charleston, Kanawha County, West Virginia  
UTM Coordinates: 445.92 km Easting • 4240.52 km Northing • Zone 17  
Directions: From the City of Charleston take I 64 east to Exit 98 (35<sup>th</sup> St.). Turn right off of 35<sup>th</sup> St. onto SR61 (MacCorkle Ave. SE) and go approximately 0.15 miles. Turn left onto South Park Road. Follow South Park Road to the landfill.

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### Facility Description

The Charleston Sanitary Landfill is a municipal solid waste (MSWL) facility that operates under SIC Code 4953. The landfill accepts municipal solid waste, construction/demolition/debris (CDD), and approved residual waste streams. The Landfill is comprised of three disposal areas commonly referred to as Areas C1, A, and C. Area C is the only active disposal area.

### Emissions Summary

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Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2019 Actual Emissions
Carbon Monoxide (CO)	148.74	14.13
Nitrogen Oxides (NO <sub>x</sub> )	56.34	4.04

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Regulated Pollutants	Potential Emissions	2019 Actual Emissions
Particulate Matter (PM <sub>2.5</sub> )	111.53	8.02
Particulate Matter (PM <sub>10</sub> )	111.53	13.40
Total Particulate Matter (TSP)	111.53	87.49
Sulfur Dioxide (SO <sub>2</sub> )	9.0	0.66
Volatile Organic Compounds (VOC)	47.27	7.38

Hazardous Air Pollutants	Potential Emissions	2019 Actual Emissions
HCL	2.06	0.07
Formaldehyde	3.12	0.14
Toluene	4.07	2.60
Xylene	1.44	0.92
Ethyl Benzene	0.55	0.35
Hexane	0.64	0.41
Vinyl Chloride	0.52	0.33
Other HAPs	5.84	1.57
Total HAPs	18.24	6.39

*Some of the above HAPs may be counted as PM or VOCs.*

**Non-methane organic compounds (NMOC)** – The current emission rate estimate (calculated for year 2020) is 7.92 Mg/yr. The projected closure year is 2026 with a projected maximum NMOC emission rate estimate of 8.91 Mg/yr. The projected NMOC emission rate of 34 Mg/yr, triggering the requirements for the construction of a collection and control system, is estimated to never occur based on current waste acceptance rates. The NMOC emission rate estimates were calculated using EPA’s Landfill Gas Emissions Model (LandGEM) software. The values used for k and Lo were “0.050 year<sup>-1</sup>” and “170 m<sup>3</sup>/Mg” respectively. The site specific NMOC concentration used in the model was 48.0 ppmv as hexane, as determined by Tier 2 testing in September 2017.

**Title V Program Applicability Basis**

This landfill has a design capacity over 2.5 million megagrams and 2.5 million cubic meters. This facility also has the potential to emit 148.74 tpy of CO and 111.53 tpy of PM<sub>10</sub>. Due to this facility's design capacity and their potential to emit over 100 tons per year of criteria pollutant, the City of Charleston Sanitary Landfill is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

**Legal and Factual Basis for Permit Conditions**

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR6 45CSR11 45CSR13 WV Code § 22-5-4 (a) (14)  45CSR16  45CSR23  45CSR30 45CSR34  40 C.F.R. Part 61 40 C.F.R. Part 82, Subpart F 40CFR60 Subpart JJJ  40CFR63 Subpart ZZZZ	Open burning prohibited. Standby plans for emergency episodes. Construction permit requirement. The Secretary can request any pertinent information such as annual emission inventory reporting. Standards of Performance for New Stationary Sources Pursuant to 40 CFR Part 60 To Prevent and Control Emissions From Municipal Solid Waste Landfills Operating permit requirement. Emission Standards for Hazardous Air Pollutants Asbestos inspection and removal Ozone depleting substances Standards of Performance for Stationary Spark Ignition Internal Combustion Engines Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
State Only:	45CSR4 45CSR17	No objectionable odors. To Prevent and Control Fugitive Particulate Matter

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

**Active Permits/Consent Orders**

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit ( <i>if any</i> )
R13-2667B	05/04/2018	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table," which may be downloaded from DAQ's website.

### **Determinations and Justifications**

This is a renewal of the Title V permit which was issued on October 20, 2015 and modified on August 21, 2018 (MM01) and October 7, 2020 (AA01). Changes to the most recent version of the Title V permit consist of the following:

#### **1) Title V Section 3 changes**

- a. The DAQ and EPA contact information was updated.
- b. Condition 3.1.9 and 3.1.10's citations were updated since 45CSR17 is State-Enforceable only.
- c. Condition 3.1.11 was added to require the permittee to submit an odor control plan and modify the Title V permit to include the plan once it is approved.

#### **2) Title V permit section 4.0 had major changes due to 40 CFR 60 Subpart WWWW changes that were published on March 26, 2020 and changes to 45CSR23 effective on June 1, 2018**

- a. The City of Charleston Sanitary Landfill is a MSWL that commenced construction, reconstruction, or modification on or after May 30, 1991, but before July 14, 2014 and is subject to the requirements of 40 CFR 60 Subpart WWWW. According to 40CFR§60.750(d), an affected facility must continue to comply with 40 CFR 60 Subpart WWWW until it becomes subject to the more stringent requirements in an approved and effective state or federal plan that implements 40 CFR 60 Subpart Cf or it modifies or reconstructs after July 17, 2014 and becomes subject to 40 CFR 60 Subpart XXX. 45CSR23, effective on June 1, 2018 implements 40 CFR 60 Subpart Cf, so the City of Charleston Sanitary Landfill is now subject to the requirements of 45CSR23 instead of 40 CFR 60 Subpart WWWW. Therefore, Title V permit Section 4.0's former conditions from 40 CFR 60 Subpart WWWW were replaced with the conditions from 45CSR§23-7. Conditions within 45CSR§23-7 for a MSWL having a design capacity less than 2.5 million megagrams or 2.5 million cubic meters were not included because the City of Charleston Sanitary Landfill exceeds these design limits.
- b. This facility is not currently required to have an active collection system and control device installed because of their NMOC emissions. They are currently Tier 2 with NMOC emissions of 7.92 Mg/yr. NMOC emissions must be reported annually or a 5 year-projection must be provided in lieu of the annual report in accordance with condition 4.5.2.c.
- c. The reports required under conditions 4.5.1 and 4.5.2 were submitted on May 30, 2019.
- d. Permit conditions 4.1.5-4.1.16, 4.2.1-4.2.4, 4.3.1-4.3.2, 4.4.2-4.4.6, and 4.5.5-4.5.6 were kept in the permit with updated numbering.

#### **3) Title V Section 7 changes**

- a. 40 CFR 60 Subpart Kb requirements were removed from Section 7. According to 40CFR§60.110b(b), this subpart does not apply to storage vessels with a capacity greater than or equal to 151 m<sup>3</sup> storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa). Tanks TK12, TK13, and TK14 have a capacity greater than 151 m<sup>3</sup> and they store a liquid with a maximum true vapor pressure less than 3.5 kPa, therefore these tanks are not subject to 40 CFR 60 Subpart Kb.

### **Non-Applicability Determinations**

The following requirements have been determined not to be applicable to the subject facility due to the following:

**40 CFR 63, Subpart AAAA—NESHAP for Municipal Solid Waste Landfills:** This facility is not subject to AAAA because:

1. This MSW landfill is not a major source of HAPs.
2. The MSW landfill is not collocated with a major source of HAPs.
3. The MSW landfill is an area source with a design capacity equal to or greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters (m<sup>3</sup>) and has estimated uncontrolled emissions less than 50 megagrams per year (Mg/yr) NMOC.
4. This MSW landfill does not include a bioreactor, as defined in 40 C.F.R §63.1990.

**40 CFR 64—Compliance Assurance Monitoring:** No changes have been made at this facility since the previous CAM determination. Therefore, CAM still does not apply.

### **Request for Variances or Alternatives**

None.

### **Insignificant Activities**

Insignificant emission unit(s) and activities are identified in the Title V application.

### **Comment Period**

Beginning Date: February 25, 2021  
Ending Date: March 29, 2021

### **Point of Contact**

All written comments should be addressed to the following individual and office:

Nikki Moats  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304  
Phone: (304)-926-0499 ext. 41282  
Nikki.B.Moats@wv.gov

### **Procedure for Requesting Public Hearing**

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

### **Response to Comments (Statement of Basis)**

On March 26, 2021, comments were received from Larry and Ann Green who live near the City of Charleston Sanitary Landfill. The Greens described ongoing odor issues with the landfill and requested that DAQ consider the addition of language to the Title V operating permit renewal that would clearly lay out the expectation that the landfill operators must resolve the odor issue permanently and lay out specific penalties should these odor issues not be resolved.

The DAQ is aware of ongoing odor issues at the City of Charleston Sanitary Landfill and because of citizen complaints dating back to February 6, 2020 and subsequent compliance investigations, DAQ entered into consent order CO-R4-E-2020-06 with the City of Charleston Sanitary Landfill on July 6, 2020. Under the Order for Compliance Section, Items #2 and #3 of the consent order, the following must occur:

2. By July 20, 2020, the Company shall submit an Odor Control Plan to the DAQ for review and approval. The plan shall outline a procedure for minimizing and/or preventing future odor incidents from the City of Charleston Sanitary Landfill and a procedure for investigating odor complaints.
3. Within thirty (30) days of approval of the Odor Control Plan, the approved plan shall be submitted to the DAQ for incorporation into the Charleston Landfill's Title V Permit.

WV DAQ's rule 45CSR30 provides for the establishment of a comprehensive air quality permitting system consistent with the requirements of Title V of the Clean Air Act. Under Section 5.1 of 45CSR30 it states that each Title V operating permit issued shall include all applicable requirements that apply to the source at the time of permit issuance. The Title V operating permit renewal which went out for public comment on February 25, 2021 included all the source's applicable requirements. An Odor Control Plan was submitted to the DAQ by the City of Charleston Sanitary Landfill on July 20, 2020 and is currently under review by DAQ's Compliance and Enforcement Section. However, since an Odor Control Plan has not been approved and the Title V operating permit only contains the applicable requirements of a source at the time of permit issuance, it could not be included in this Title V operating permit renewal. However, placeholder language was included as reflected in permit condition 3.1.11 which states the following:

The permittee shall develop and submit an Odor Control Plan to the Director of the Division of Air Quality for review and approval. Such plan shall outline a procedure of minimizing and/or preventing odor incidents from the landfill and a procedure for investigating odor complaints. Within thirty (30) days of the Director's approval of the Odor Control Plan, the permittee shall submit a Title V permit modification to incorporate the Odor Control Plan approved by the Division of Air Quality into the facility's Title V permit.

As for the request to lay out specific penalties in the Title V operating permit should the landfill fail to resolve their odor issues, DAQ cannot include specific penalties into a Title V operating permit because as specified above, only applicable requirements are included in the operating permit. Once the Odor Control Plan is approved it becomes an applicable requirement under Title V and will be included in the permit. If the City of Charleston Sanitary Landfill fails to comply with the conditions of their Odor Control Plan, DAQ's Compliance and Enforcement Section will investigate and determine what actions or penalties may result.

In conclusion, West Virginia Rule 45CSR§30-5.1 states that each Title V operating permit shall include all applicable requirements that apply to the source at the time of permit issuance. It is the determination of WV DAQ that all current applicable requirements for the City of Charleston Sanitary Landfill were included in the Draft Title V operating permit renewal issued on February 25, 2021. However, for clarification, a note was added to condition 3.1.11 of the proposed permit to specify that an Odor Control Plan was submitted on July 20, 2020 but has not been approved. No changes were made to the proposed fact sheet other than this "Response to Comments (Statement of Basis)" Section.

The comment letter from the Greens and the DAQ's response to comments will be placed in the Title V permit application file for R30-03900461-2021.