

2020 ANNUAL INSPECTION REPORT

LANDFILL NO. 9

**OEPA PERMIT TO INSTALL:
06-1179, 06-1452, AND 06-4248**

**FORMER STUART STATION
MANCHESTER, ADAMS COUNTY, OHIO**

Prepared for:

Kingfisher Development, LLC
2275 Cassens Drive, Suite 118
Fenton, Missouri 63026

Prepared by:

KEY Environmental, Inc.
200 Third Avenue
Carnegie, Pennsylvania 15106

MARK LAHR, P.E.

NOVEMBER 09, 2020



Purpose

I have conducted the annual inspection in compliance with the Federal CCR Rule, 40 CFR Part 257.

Statement of Qualifications

I am a practicing Civil/Geotechnical Professional Engineer registered in the State of Ohio. I am experienced in the design, maintenance, and operation of landfills.

Review of Landfill Documentation [§257.84(b)(1)(i)]

Design, History, and Operation of the Facility

Landfill No. 9 was originally permitted and constructed in 1984. An expansion was permitted in 1986 and another in 1995 under Ohio EPA Division of Surface Water exempt waste rules.

Permanent side slopes at the facility are 3:1 slope with a 20-foot wide bench for every 20 feet of vertical rise. The liner is two feet of compacted clay with a permeability of 1×10^{-7} or lower. Drainage media consists of a minimum of one foot of bottom ash. The bottom is sloped to the south where the leachate is intercepted by a perimeter drain which outlets approximately every 100 feet.

Fly ash, the primary disposal material, is moisture conditioned and compacted to 90% maximum dry density. Inactive areas are covered with temporary cover. All areas except a bottom ash stockpile were covered with temporary or permanent cover.

A perimeter ditch collects storm water, contact water and leachate and conveys them to the Stormwater-Leachate Retention Pond on the south side of the facility.

Periodic Inspections

The Weekly Inspection reports conducted through 2020 were reviewed. These periodic inspections indicated no issues with slope stability.

Visual Inspection of Landfill [§257.84(b)(1)(ii)]

Landfill No. 9 is in good structural condition. Appendix A provides the *Landfill Annual Field Inspection Report*.

Changes in Geometry [§257.84(b)(2)(i)]

There were no changes to slopes in the form of slides, sloughs or bulges or other indication of deformation or other indicators of instability.

Volume of CCR [§257.84(b)(2)(ii)]

Landfill No. 9 contains approximately 15.5 million cubic yards of CCR material.

Structural Weakness [§257.84(b)(2)(iii)]

No indication was found of an actual or potential structural weakness of the CCR unit or any existing condition that was disrupting or had the potential to disrupt the operation and safety of the CCR unit and appurtenant structures.

Other Changes [§257.84(b)(2)(iv)]

No changes were found to the CCR unit which could affect the stability or operation of the structure since the previous annual inspection.

APPENDIX A
LANDFILL ANNUAL FIELD
INSPECTION REPORT

LANDFILL ANNUAL FIELD INSPECTION REPORT
Former JM Stuart Station

Inspection Date: October 29, 2020

Weather Conditions: rainy, high around 50 degrees (heavy rain the night before)

CCR Unit: Landfill No. 9

Original PTI Number: 06-1179

Construction / Design Details:

24 inch thick compacted clay liner, 12 inch bottom ash drainage layer, 24 inch clay cover, 6 inch vegetative cover soil, and grass ground cover.

	Action			
	None	Monitor	Repair	Engineer

PERMANENT COVER SLOPES (3H:1V)

Cover Vegetation

Trees?

Woody Brush? Describe and Locate: Upper inlets exhibit some growth.

Grass Ground Cover:

Condition: Vegetative cover is in good condition.

Surface Damage

Soil Erosion Rills: none observed

Rodent Burrows

Slope Instabilities

Slides / Sloughs: None

Cracks: None

Bulges: Slopes uniform, no instability observed

Other

Water Seeps / Saturated Areas

Monitoring Instruments

Groundwater monitoring wells: recently sampled, wells in good condition

Other

	Action			
	None	Monitor	Repair	Engineer
Hydraulic Structures				
Leachate Drains: Good condition Drains outlet ~ every 100 feet along southern portion of the landfill	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bench Drains: Good Condition 24 inch dia pipes (various materials) with inlets on each bench	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Perimeter Ditch: Good Condition Clay lined ditch with grass. Some concrete gutters.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water Collection Pond: Good Condition 26 acre clay lined incised pond with stone shoreline protection. Finger dikes provided to lengthen flow path.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inlet: Good Condition Concrete aprons transition to riprap	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Forebay Condition: little material accumulation observed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outlet Structure: Good Condition Concrete structure with valving to control discharge Floating 8 inch dia skimmer pipe for normal discharge	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Discharge Conduit 14 inch dia HDPE pipe - good condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Discharge Structure Riprap lined outlet area - good condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments / Additional Remarks

Monitor / mow brushy areas around the upper level and bench drain inlets