



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET S.W
ATLANTA, GEORGIA 30303-8960

SENT VIA ELECTRONIC MAIL

Anthony Gregory
General Manager
Republic Services/Richland Creek Road Sanitary Landfill
5691 South Richland Creek Road
Buford, Georgia 30518
agregory@republicservices.com

Dear Mr. Gregory:

Enclosed is a copy of the final report generated by the U.S. Environmental Protection Agency's Region 4, South Air Enforcement Section, for the inspection conducted at the Richland Creek Road Sanitary Landfill, located in Buford, Georgia, on July 8, 2021.

If you have any questions, you can contact me at (404) 562-9134, or by email at taylor.kevin@epa.gov.

Sincerely,

KEVIN TAYLOR

Digitally signed by KEVIN
TAYLOR
Date: 2021.10.19 13:36:35 -04'00'

Kevin Taylor
Environmental Engineer
South Air Enforcement Section

Enclosure

ENCLOSURE
FINAL INSPECTION REPORT

**United States Environmental Protection Agency (EPA) Region 4
Air Enforcement Branch
Draft Inspection Report**

I. GENERAL INFORMATION

Facility Name: Richland Creek Road Sanitary Landfill

Location (Address): 5691 South Richland Creek Road
Buford, Georgia 30518

Inspection Date: July 8, 2021

Type of Inspection (Full or Partial Compliance Evaluation):
Partial Compliance Evaluation

ICIS-Air Number: GA0000001313500219

EPA Investigator(s)/Inspector(s):

1. Kevin Taylor, Environmental Engineer
2. Sydnee Adams, Environmental Engineer
3. Andrew Mills, Environmental Engineer
4. Katelyn Bergl, Environmental Engineer
5. Bethany Terpin, Environmental Scientist

State/Local Investigator(s)/Inspector(s):

1. Kenneth Phillips, Georgia Environmental Protection Division (EPD)

Person(s) Contacted at Facility (Name and Title):

1. Justley Harston, SE Area Environmental Manager
2. Tony Gregory, General Manager
3. John Odom, Operations Manager
4. Benjamin Haney, SCS Field Services
5. Greg Hinson, SCS Field Services
6. Sowmya Bulusu, SCS Field Services

Report Prepared by: Kevin Taylor

II. FACILITY INFORMATION

A. Facility and Permit Information

Facility and Permit Information	Comments
1. Type of facility (e.g., chemical plant, refinery, cement manufacturer, etc.).	Municipal Solid Waste Landfill
2. Air permit number(s) and type of permit (e.g., Title V, PSD, Synthetic Minor, etc.).	Title V Operating Permit No. 4953-135-0219-V-04-0
3. Air permit issuance date.	06/01/2018
4. Air permit expiration date.	05/31/2023
5. Facility classification (Major, Synthetic Minor/Conditional Major, Minor).	Major
6. Major source pollutants (if applicable).	Hazardous Air Pollutants (HAPs) Volatile Organic Compounds (VOCs)
7. Applicable regulations (e.g., State Implementation Plan, MACT Subpart FFFF, NSPS Subpart EEEE, etc.).	40 CFR Part 60 Subpart WWW NSPS – Municipal Solid Waste Landfills 40 CFR Part 61 Subpart M NESHAP – Asbestos 40 CFR Part 63 Subpart AAAA MACT - Municipal Solid Waste Landfills
8. Types of air emission points (e.g., tanks, process vents, boilers, etc.).	Gas Collection and Control System (GCCS)
9. Types of air pollution control equipment (e.g., baghouse, scrubber, afterburner, etc.).	Gas generated from the decomposition of waste is sent to either an enclosed flare, (2)

	open flares, or a 3 rd party power generation facility (separately permitted).
--	---

B. Process Description (provide narrative or attach description provided by the company or excerpts from the permit)

Richland Creek Road Sanitary Landfill receives, manages, and disposes of solid waste, including, but not limited to, municipal solid waste, commercial waste, and industrial waste. The maximum permitted design capacity approved is 34.7 million cubic meters. Waste is accepted, compacted, and covered daily. Waste decomposition produces landfill gas and leachate, both of which are managed through collection and control systems. Gas generated from the decomposition of waste is collected by a gas collection and control system (GCCS) and either burned in an enclosed flare or two open flares or sent to a third-party power generation facility. The third-party power generation facility has its own landfill gas treatment system.¹

III. INSPECTION ACTIVITIES

Activity	Yes	Comment
	No	
	NA	
Opening Meeting		
1. Date and time entered the facility.	Yes	The EPA Region 4 inspectors entered the facility on July 8, 2021, at 10:00 am (EDT).
2. Credentials presented to facility personnel (include name and title).	Yes	Upon arrival, EPA Region 4 inspectors presented their EPA credentials to the facility personnel.
3. Conducted an opening meeting to explain the purpose and objectives of the inspection.	Yes	The EPA Region 4 inspectors held a virtual opening meeting with the Richland Creek Landfill personnel and representatives of the SCS Field Services contractors via Microsoft

¹ The process description was taken from the overall facility process description described in the UWL/Richland Creek Road Sanitary Landfill Title V Operating Permit No. 4953-135-0219-V-04-0.

		Teams on July 7, 2021 at 2:00 pm EDT during which the purpose and objectives of the inspection were explained.
4. Discussed safety issues.	Yes	The EPA inspectors discussed with the facility the personal safety equipment needed to conduct the inspection, emergency procedures for the facility and COVID-19 safety protocols required by EPA and the facility.
5. Discussed which records to be reviewed.	Yes	Based on Covid-19 safety protocols, no records were reviewed onsite during the inspection. Maps and semiannual reports were acquired prior to the onsite inspection.
6. Discussed the facility walk-through and the areas to be observed in the facility.	Yes	EPA inspectors discussed the overall inspection plan, which included starting at the flares, monitoring ground level methane around the perimeter and then walking the grid pattern in areas to be determined during the walk-through.
7. Discussed facility policy regarding photographs or video (if applicable).	Yes	EPA inspectors indicated that videos may be taken with the infrared camera. If a video was taken, EPA would give the facility prior notice of the recording and ask that the facility identify any proprietary concerns before any video was taken to help EPA assess the need for the video. All videos taken during the inspection would be sent to the facility.
8. Discussed the use of the infrared camera, TVA, PID, and any other equipment.	Yes	EPA inspectors communicated the use of the infrared camera, the toxic vapor analyzer (TVA) and GPS unit for location identification.

9. Discussed CBI.		EPA inspectors requested that anything that the facility considers to be CBI be identified. The facility would also have an opportunity to review the EPA inspection report and any recorded video for CBI content prior to finalizing it. Any information identified as CBI would be treated in accordance with regulations.
Records Reviewed at the Facility		
10. The types of records reviewed and the time period reviewed.	No	Due to Covid-19 safety concerns, no records were reviewed during the inspection.
Facility Walk-Through Observations		
11. The process equipment observed and the associated operational rate observed (e.g., Furnace 1 production rate was 5 lbs/hr on 1/1/15, at 2:00 pm – permit requires max rate at 6 lbs/hr). Provide the date and time the information was recorded by the inspector. Identify the permit limit (if applicable).	Yes	See Attachment A

An attachment may be used for a large amount of information.		
12. The type of process parametric monitoring observed and the associated value observed (e.g., Furnace 1 flux injection rate was 200 lbs/batch at 1/1/15, at 2:00 pm – permit requires max rate at 225 lbs/batch). Provide the date and time the information was recorded by the inspector. Identify the permit limit (if applicable). An attachment may be used for a large amount of information.	N/A	
13. If process equipment or parametric monitoring equipment was not operating, state the reason by facility personnel why the equipment was not operating.	N/A	
14. The type of air pollution control equipment, the process equipment it is controlling, and the associated parametric monitoring value observed (e.g., baghouse pressure drop, temperature, scrubber flow rate, etc.).	Yes	Waste gas generated from the decomposition of waste in the landfill is collected by a gas collection and control system (GCCS). The waste gas is primarily sent to a third-party power generation facility. However, there is an enclosed flare that is used as a backup for the power generation facility's waste stream and a utility/candlestick flare that is used as a backup for the waste gas stream going to the

(For example - RTO 1 controlling furnace 1, 1,500 degrees F on 1/1/15, at 2:00 pm – permit requires 1,400 degree F or higher). Provide the date and time the information was recorded by the inspector. Identify the permit limit (if applicable). An attachment may be used for a large amount of information.		engines at the third-party power generation facility. At the time of the inspection, both flares were in operation. Due to the safety protocols for Covid-19, the EPA inspectors did not go into the control room to obtain operating parameters but did observe both flares using the infrared camera. It should be noted that the facility is permitted for a third utility flare. However, the third flare was disconnected and removed from the GCCS in May 2016. It is still listed in the Title V permit but the facility would have to notify the Georgia EPD before connecting and operating the flare in the future.
15. Continuous emissions monitoring devices and values observed. (e.g., CEMS, COMs, etc.). Provide the date and time the information was recorded by the inspector. Identify the permit limit (if applicable). An attachment may be used for a large amount of information.	N/A	
16. If air pollution control equipment was not operating, state the reason	N/A	

by facility personnel why the equipment was not operating.		
17. Capture and collection system (enclosures and hoods) observations, if applicable (e.g., the magnitude and duration of emission escaping capture from the hood).	Yes	Waste gas generated from the decomposition of waste in the landfill is collected by a gas collection and control system (GCCS). During the inspection, there were recorded instances of leaks and emissions using both the TVA and the infrared camera. See Attachment A.
18. Ductwork transferring the emissions to the air pollution control device observations, if applicable (e.g., the magnitude and duration of emission escaping from the ductwork, holes or deterioration in ductwork, no deterioration observed, etc.).	N/A	
19. Any existing unpermitted emission points, new unpermitted emission points, or non-permitted construction activities observed. (if yes, describe in the comments field).	No	
20. Were any visible emissions observed? (if yes, identify the location and equipment).	No	There were no emissions which were visible to the naked eye. However, the emissions that were observed were volatile organic emissions which are not normally detectable by sight but were observed using the TVA and/or the infrared camera.

21. Was a Method 9 reading performed? (if yes, identify the location and equipment).	No	
22. Was the cause of the visible emissions investigated and the information documented?	N/A	
23. Was a Method 22 performed for visible emissions? (if yes, identify the location and equipment).	N/A	
24. Identify the cause of the visible emissions as explained by facility personnel, if applicable.	N/A	
25. Was the infrared camera used? If so, attach the video log (which includes the equipment ID, and the date and time the video was recorded) and videos to this report.	Yes	See Video Log Attachment B
26. Was the TVA used? If so, identify the equipment monitored and the results. Provide the date and time the information was recorded by the inspector. Include actual instrument readings for each piece of equipment monitored above the	Yes	See TVA Reading Log Attachment C

leak definition and/or where the infrared camera identified a release. An attachment may be used for a large amount of information.		
27. Was the PID used? If so, identify how the PID was used and the results. Provide the date and time the information was recorded by the inspector. An attachment may be used for a large amount of information.	No	
Closing Meeting		
28. Conducted a closing meeting.	Yes	EPA Region 4 inspectors conducted a closing meeting on July 8, 2021 at 3:49 pm EDT with the facility personnel and the participation of the Georgia EPD inspector. The close out meeting was conducted in the parking lot of the facility.
29. Summarize any additional information needed, if applicable?	No	No additional information was requested of the facility at the time of the inspection.
30. Accept a declaration of CBI, if applicable?	No	Although the CBI procedures were explained in the opening meeting and at the start of the inspection. A CBI declaration was not made at the time of the inspection. The facility was advised that an inspection report and all recorded videos and pictures would be sent to them for a CBI review following the inspection.

31. Discussed observations.	Yes	EPA inspectors discussed the observations made during the inspection. This included the specific areas of elevated TVA readings at the extraction well sites and leachate collection and clean out areas and the infrared video recordings of emissions at the extraction well sites and leachate collection and clean out areas and the South Leachate Tank.
32. Discussed next steps, if applicable?	Yes	The EPA inspectors stated that an inspection report and the submission of all recorded videos and pictures would be the next step in the process.
33. Date and time inspection concluded.	Yes	The inspection concluded on July 8, 2021 at approximately 4:00 pm EDT.
Miscellaneous		
34. Include any additional observations, if applicable.	N/A	

EPA Investigator/Inspector Signature: KEVIN TAYLOR Digitally signed by KEVIN TAYLOR
Date: 2021.10.19 13:37:16 -04'00'

EPA Supervisor Signature & Title TODD GROENDYKE Digitally signed by TODD
GROENDYKE
Date: 2021.10.19 13:53:34 -04'00'

Date Report Finalized: _____

ATTACHMENTS

1. Attachment A: Inspection Narrative
2. Attachment B: Video and Photo Log
3. Attachment C: TVA Recorded Readings Log

ATTACHMENT A

Inspection Narrative

The EPA inspectors, along with Kenneth Phillips of the Georgia EPD, began the inspection with a downwind reading from the TVA. The weather condition was cloudy, and the wind was from the West Northwest at approximately three (3) miles per hour (mph), with wind gusts up to 10 mph. The downwind reading was taken at 10:46 am around the gas conversion facility. The TVA recorded an organic vapor reading of 10 parts per million (ppm). While in the gas conversion facility area, the infrared camera was used to observe the enclosed flare and the candlestick/utility flare. At 11:10 am, an upwind reading from the TVA was taken around the landfill's Stage 2 landfill area and the TVA recorded a reading of 1.0 ppm. The inspection team then started the landfill monitoring survey with the perimeter well heads and leachate collection systems, starting with Stage 2.

Readings above 500 ppm were recorded for Well 91 (high 1070 ppm), Well 78 (high of 70,000 ppm), Well 12 (high of 13,000 ppm), and the east and west leachate collection system clean outs lines (high of 10,000 ppm). The inspection team concluded the perimeter monitoring and broke for lunch. Upon returning from lunch, the EPA inspection team decided to focus the infrared camera on the leachate collection points and the TVA on surface monitoring using a grid pattern across the landfill. For the grid monitoring, several issues were recorded at Well 194. TVA readings greater than 1000 ppm were measured on the vacuum side of Well 194 (not the extraction side). The air header and liquid header isolation valves around Well 194 recorded readings greater than 500 ppm. The gas header valve near Well 194 recorded readings as high as 2000 ppm. The access gas riser for the Well 194 header line (18-inch line) recorded TVA readings greater than 1000 ppm, with a peak reading of 3200 ppm. For the other areas surveyed, Well 195 had a peak reading of 7000 ppm on its vacuum side and 700 ppm on its extraction side. Surface erosion to the west of Well 195 recorded a ground reading of 512 ppm. The LC9 leachate collection cleanout line recorded a reading of 1900 ppm. In the Stage 9 area of the landfill, the leachate collection sump recorded readings of up to 60,000 ppm on the south line and readings more than 190,000 ppm on the north line. The liner edge marker to the north of the leachate collection area had a peak reading of 1700 ppm. For more information on the TVA readings and the exact location of the readings, see Attachment C of this report. Also, see Attachment B for the photographs and videos taken with the infrared camera.

ATTACHMENT B

Video and Photo Log

Video Log

Image Number	File Name	Date and Time (incl. time zone and DST)	Description of Image
1	MOV_0975.mp4	7/8/2021 11:49	Utility/Candlestick Flare
2	MOV_0976.mp4	7/8/2021 11:52	Enclosed Flare with emissions
3	MOV_0977.mp4	7/8/2021 12:35	Leachate Clean Out 2 – Flange leak – down from well 98
4	MOV_0978.mp4	7/8/2021 13:30	Extraction Well 78
5	MOV_0979.mp4	7/8/2021 15:37	South Leachate Tank
6	MOV_0980.mp4	7/8/2021 16:06	– Leachate Collection Sump for Stage 9 – valve box – crack in ground – edge of liner
7	MOV_0981.mp4	7/8/2021 16:17	Leachate Collection Sump for Stage 9 – South one – from ground under pipe
8	MOV_0982.mp4	7/8/2021 16:24	Leachate Collection Sump for Stage 9 – North one – from ground under pipe

Photo Log

Image Number	File Name	Date and Time (incl. time zone and DST)	Description of Image
1	DC_0983.jpg	2021:07:08 15:37:29	Leachate Collection Sump for Stage 9 – erosion
2	DC_0984.jpg	2021:07:08 15:39:06	West Side Edge of Liner – erosion
3	DC_0985.jpg	2021:07:08 15:39:21	West Side Edge of Liner – erosion
4	DC_0986.jpg	2021:07:08 15:39:50	West Side Edge of Liner – erosion

ATTACHMENT C

TVA Recorded Readings Log

<u>#</u>	<u>Reading (ppm)</u>	<u>Time</u>	<u>Location description</u>	<u>GPS coordinates</u>	<u>Notes</u>
<u>1</u>	<u>2</u>	<u>10:49 AM</u>	<u>LFGE, gas conversion area</u>	<u>34°07.782, 084°01.959</u>	
<u>2</u>	<u>10</u>	<u>10:30 AM</u>	<u>office, downwind reading</u>		
<u>3</u>	<u>1</u>	<u>11:11 AM</u>	<u>upwind reading</u>	<u>34°07.274, 084°02.537</u>	
<u>4</u>	<u>1070</u>	<u>11:26 AM</u>	<u>Well 91</u>	<u>34°08.150, 084°01.841</u>	<u>range: 400-600 ppm</u>
<u>5</u>	<u>70,000 (70%)</u>	<u>11:34 AM</u>	<u>Well EW 78</u>	<u>34°08.177, 084°01.867</u>	<u>distressed vegetation, range: 100,000-200,000 ppm</u>
<u>6</u>	<u>13,000 (1.3%)</u>	<u>11:41 AM</u>	<u>Well 12</u>	<u>34°08.204, 084°01.886</u>	<u>range: 3000-5000 ppm</u>
<u>7</u>	<u>10000 (1%)</u>	<u>12:10 PM</u>	<u>leachate cleanout, downhill from Well 98 (east)</u>	<u>34°08.308, 084°02.042</u>	<u>range at the ground: 3000-5000 ppm, max at flange</u>
<u>8</u>	<u>1500</u>	<u>n/a</u>	<u>W194</u>	<u>34°07.956, 084°02.543</u>	<u>range: 500-600ppm</u>
<u>9</u>	<u>780</u>	<u>n/a</u>	<u>Isolation Valves at Liquid conveyances</u>	<u>34°07.952, 084°02.546</u>	<u>550 ppm at air conveyance</u>
<u>10</u>	<u>2,000</u>	<u>n/a</u>	<u>Gas header</u>	<u>34°07.952, 084°02.546</u>	<u>range: 800-1000ppm</u>
<u>11</u>	<u>3200</u>	<u>n/a</u>	<u>Access Riser</u>	<u>34°07.952, 084°02.546</u>	<u>range: 1,000-2,000 ppm</u>
<u>12</u>	<u>600</u>	<u>n/a</u>	<u>Stage 9 West Slope</u>	<u>34°07.966, 084°02.551</u>	
<u>13</u>	<u>700</u>	<u>2:50 PM</u>	<u>Stage 9 West Slope</u>	<u>34°07.960, 084°02.555</u>	
<u>14</u>	<u>550</u>	<u>2:56 PM</u>	<u>Stage 9 West Slope</u>	<u>34°07.968, 084°02.561</u>	
<u>15</u>	<u>7,000</u>	<u>3:00 PM</u>	<u>Well 195</u>	<u>34°07.972, 084°02.572</u>	<u>Range 1,000-2,000ppm</u>
<u>16</u>	<u>600</u>	<u>3:05 PM</u>	<u>Stage 9 West Slope, crevice</u>	<u>34°07.976, 084°02.577</u>	
<u>17</u>	<u>1,900</u>	<u>3:09 PM</u>	<u>Well LC09</u>	<u>34°07.982, 084°02.582</u>	<u>Range: 580-700ppm</u>

<u>18</u>	<u>37,000</u> <u>(3.7%)</u>	<u>3:16</u> <u>PM</u>	<u>Stage 9 Leachate</u> <u>Collection Riser</u>	<u>34°07.967,</u> <u>084°02.617</u>	<u>Range: Above 10,000</u>
<u>19</u>	<u>191,600</u> <u>(19.16%)</u>	<u>3:18</u> <u>PM</u>	<u>Stage 9 Leachate</u> <u>Collection Riser</u>	<u>34°07.966,</u> <u>084°02.615</u>	
<u>20</u>	<u>61,800</u> <u>(6.18%)</u>	<u>3:20</u> <u>PM</u>	<u>Stage 9 Leachate</u> <u>SUMP</u>	<u>34°07.964,</u> <u>084°02.614</u>	<u>1,000ppm on top of flange</u>
<u>21</u>	<u>19,400</u> <u>(1.94%)</u>	<u>3:26</u> <u>PM</u>	<u>Above Leachate</u> <u>SUMP</u>	<u>34°07.966,</u> <u>084°02.612</u>	
<u>22</u>	<u>300,000</u> <u>(30.00</u> <u>%)</u>	<u>3:28</u> <u>PM</u>	<u>Pump 3-67</u>	<u>34°07.966,</u> <u>084°02.612</u>	
<u>23</u>	<u>4,500</u>	<u>3:30</u> <u>PM</u>	<u>Near Leachate SUMP</u>	<u>34°07.963,</u> <u>084°02.612</u>	
<u>24</u>	<u>1,700</u>	<u>3:31</u> <u>PM</u>	<u>Liner Boundary</u>	<u>34°07.962,</u> <u>084°02.608</u>	
<u>25</u>	<u>550</u>	<u>3:34</u> <u>PM</u>	<u>Liner Boundary</u>	<u>34°07.952,</u> <u>084°02.602</u>	
<u>26</u>	<u>620</u>	<u>3:35</u> <u>PM</u>	<u>Liner Boundary</u>	<u>34°07.955</u> <u>084°02.595</u>	