

2021 ANNUAL CCR UNIT INSPECTION
INDIAN RIVER LANDFILL
NRG INDIAN RIVER STATION
DAGSBORO, DELAWARE

SCS ENGINEERS

25221158.00 | January 18, 2022

40 Shuman Blvd, Suite 216
Naperville, IL 60563

1.0 INTRODUCTION

1.1 OVERVIEW OF ANNUAL INSPECTION REPORT

SCS Engineers (SCS) has completed an annual inspection of the NRG Indian River Landfill at the Indian River Generating Station in Dagsboro, Delaware. The annual inspection was completed in accordance with the U.S. Environmental Protection Agency (USEPA) Coal Combustion Residuals (CCR) Rule, 40 CFR 257 Subpart D (CCR Rule). Per 40 CFR 257.84(b)(1), an annual inspection is required to be conducted by a qualified professional engineer for all existing and new CCR landfills and any lateral expansion of a CCR landfill. For the Indian River Generating Station (owned by Indian River Power, LLC, a subsidiary of NRG Energy, Inc. [NRG]), this inspection requirement applies to Phase II of the existing Indian River Landfill.

The purpose of the annual inspection is to evaluate whether the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards. The findings from this annual inspection are summarized in subsequent sections of this report, in accordance with 40 CFR 257.84(b)(2).

This report must be placed in the Indian River facility's operating record per §257.105(g)(9), noticed to the State Director per §257.106(g)(7), and posted to the publicly accessible internet site per §257.107(g)(7). The 2020 annual inspection report was placed into the facility's operating record on January 18, 2021. Therefore, this report must be placed into the facility's operating record on January 18, 2022 to meet the annual reporting requirements of §257.84(b)(4).

1.2 OVERVIEW OF INDIAN RIVER LANDFILL

The Indian River Landfill is an industrial waste landfill used to dispose CCR and other industrial wastes generated at the station. The landfill is permitted by State of Delaware Department of Natural Resources and Environmental Control (DNREC) Solid Waste Permit No. 12/01.

The landfill consists of two major phases. Phase I is a 46-acre unlined, closed landfill that was operated between 1980 and 2014. Phase II is a 28-acre landfill expansion of Phase I that overlays the western slopes of Phase I and expands the landfill footprint to the west. Phase II has two landfill cells (Cells 1 and 2). The east portion of both Cells 1 and 2 overlays onto the western sideslopes of Phase I. Both landfill cells, including the overlay area, have a composite liner system at their base.

The Phase II expansion began accepting waste on September 17, 2010, within Cell 1. Cell 2 received operational authorization in 2015. Cell 1 is not actively receiving CCR material and has a vegetated intermediate cover. Cell 2 is currently open and actively receiving CCR material. No areas of Phase II have received final cover as described in §257.102(d)(3).

Due to the fact that Phase I was closed prior to the inception of the CCR Rule, it is not regulated under the CCR Rule. However, due to the fact that Phase II is an overlay expansion, it is recognized that the stability of Phase I may impact Phase II. Therefore, both Phases I and II are inspected on an annual basis.

2.0 ANNUAL INSPECTION

Mr. Richard Southorn, a qualified professional engineer with SCS, conducted the 2021 annual on-site inspection of IRLF on November 4, 2021. The annual inspection and evaluation focused on the following items as outlined in §257.84(b)(1)(i-ii):

- A review of available information regarding the status and condition of the CCR unit, including, but not limited to, files available in the operating record; and
- A visual inspection of the CCR unit to identify signs of distress or malfunction.

Per §257.84(b)(2) (i-iv), the following aspects of the CCR unit must be documented as part of the annual inspection:

- Any changes in geometry of the structure since the previous annual inspection;
- The approximate volume of CCR contained in the unit at the time of the inspection;
- Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit; and
- Any other change(s) which may have affected the stability or operation of the CCR unit since the previous annual inspection.

2.1 REVIEW OF OPERATING RECORD

The operating records review of the facility's operating record and verification were performed before and during the site inspection. Files reviewed included, but were not limited to:

- 2011 Phase II Landfill Expansion Application;
- NRG Permit SW-12/01;
- Previous Annual Landfill Operations Report;
- CCR Rule Inspection Reports;
- Leachate Collection System Daily Inspection Reports;
- Daily/After Storm Event Erosion Control/Emissions Inspection Forms;
- Disposal volume records provided by Indian River; and
- Miscellaneous reports and documents on NRG's CCR Rule Compliance Data Website. (<https://www.nrg.com/legal/coal-combustion-residuals.html>)

During the site inspection, Mr. Southorn interviewed Charlie Griggs (Landfill Manager) to verify the information contained within the operating record.

2.2 VISUAL INSPECTION

A visual inspection of the landfill was completed after review of the Operating Record to identify signs of distress or malfunction of the CCR unit. The visual inspection included observations of the following:

- Active disposal area (Phase II, Cell 2);
- Intermediate cover areas (Phase II);
- Final Cover areas (Phase I);
- Non-contact storm water run-on and run-off control features, including terrace benches, swales, downchutes, and sedimentation detention basins; and
- Leachate collection vaults.

Mr. Southorn focused on standard geotechnical signs of distress or malfunction such as slumping at the toe of slope, tensile cracking, abnormal or excessive erosion on the side slopes or stormwater management facilities, slope bulging, groundwater/surface water seepage or ponding, etc. These visual signs are potential indicators of structural weakness of the CCR Landfill unit.

A checklist documenting inspection findings is provided as **Attachment 1** to this report. Photographs taken during the inspection are provided as **Attachment 2** to this report. Findings are reported in **Section 3** of this report.

3.0 REGULATORY FINDINGS OF ANNUAL INSPECTION

<p>CCR Rule Documentation Requirement</p> <p>§257.84(b)(2):</p>	<p>Annual Inspection Findings</p>
<p>§257.84(b)(2)(i):</p> <p><i>(i) Any changes in geometry of the structure since the previous annual inspection;</i></p>	<p>Changes in geometry include the placement of CCR in Phase II Cell 2.</p>
<p>§257.84(b)(2)(ii):</p> <p><i>“(ii) The approximate volume of CCR contained in the unit at the time of the inspection;”</i></p>	<p>Phase II design documents indicate that Cells 1 and 2 have a total combined disposal capacity of approximately 2.2 Million cubic yards (cy). Cell 1 has approximately 1,194,000 cy total disposal capacity, while Phase II has approximately 1,006,000 cy total disposal capacity.</p> <p>Cell 1: Cell 1 has largely been filled, but NRG Energy estimates that Phase II Cell 1 has approximately 5,000 cy of emergency capacity left in the event that Cell 2 becomes inaccessible. Therefore, Cell 1 is estimated to contain 1,189,000 cy of CCR material.</p> <p>Cell 2: At the end of calendar year 2020, approximately 257,028 cy had been placed in Phase II Cell 2. An additional 47,518 tons of CCR material were placed in Phase II Cell 2 in 2021. This equates to 42,427 cy, based on an assumed conversion factor of 1 cy = 1.12 ton. Therefore, the estimated total volume disposed in Phase II Cell 2 is 299,455 cy (257,028 cy + 42,427 cy).</p> <p>Phase II (Cells 1 and 2): The estimated total disposed volume in Phase II is 1,488,455 cy (1,189,000 cy + 299,455 cy).</p> <p>It is noted that the conversion factor is based on design documents in the Phase II permit application. Additionally, Phase I volumes have not been evaluated because Phase I was closed prior to the inception of the CCR Rule and are not regulated under the CCR Rule.</p>

<p style="text-align: center;">CCR Rule Documentation Requirement</p> <p style="text-align: center;">§257.84(b)(2):</p>	<p style="text-align: center;">Annual Inspection Findings</p>
<p>§257.84(b)(2)(iii):</p> <p><i>“(iii) Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit;”</i></p>	<p>At the time of this inspection, there were no signs of actual or potential structural weakness or existing conditions that are disrupting or have the potential to disrupt the operation and/or safety of the CCR landfill. No signs of distress or malfunction were observed.</p> <p>Leachate liquid levels were elevated following large precipitation events in 2021. In order to remedy this condition, NRG installed intermediate cover over portions of Cell 2 to direct non-contact water away from the sumps and has been pumping leachate levels down. The efforts led to a lowering of leachate levels, as evidenced by a review of leachate head levels throughout the year.</p> <p>The liquid level control panel was observed to be functioning and supported by a high-level alarm. No standing leachate was observed. Containment berms that surround Cell 2 were in good condition. Based on the condition of the containment berms, lack of standing leachate, and functioning control systems, it is unlikely that leachate levels will impact operations or safety of the unit in 2022.</p>
<p>§257.84(b)(2)(iv):</p> <p><i>“(iv) Any other change(s) which may have affected the stability or operation of the CCR unit since the previous annual inspection.</i></p>	<p>There have been no changes observed during the annual inspection that have affected the stability or operation of the CCR unit since the previous annual inspection.</p> <p>A review of the operating record indicates that a minor repair was completed on a non-contact water downslope pipe. Scour had been observed in a downchute, which was attributed to a pipe joint separation. The scour was observed during weekly inspections of the landfill surface. The repair was completed in a timely manner and documentation of the observed conditions and the repair was provided to DNREC. The area appeared to be fully restored at the time of the inspection.</p>

4.0 RECOMMENDATIONS

Based on the on-site inspection performed on November 4, 2021, SCS recommends the following actions:

1. Monitor leachate head levels in Phase II Cell 2 following large precipitation events. Pump leachate out of the sump area if leachate head becomes elevated above permissible levels. If leachate levels remain elevated, use run-on diversion berms or other appropriate methods to the extent practical to minimize the volume of rainwater that enters the leachate collection system.
2. Continue operation and maintenance within the active landfilling area as currently performed.
3. Maintain access to the closed portions of the landfill to maintain the ability to perform weekly visual site structural inspections.

There were no deficiencies or releases identified during the 2021 annual inspection that require the owner or operator to perform corrective actions as required under §257.84(b)(5).

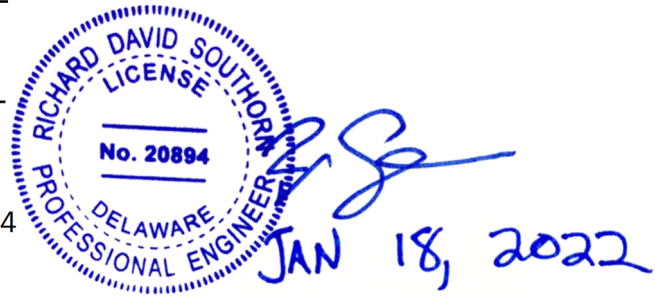
5.0 PROFESSIONAL ENGINEER'S CERTIFICATION

In accordance with §257.84(b) of the CCR Rule, I hereby certify based on a review of available information within the facility's operating records and observations from my personal on-site inspection that the IRLF does not exhibit any appearances of actual/potential structural weakness that would be disruptive to the normal operations of the IRLF. The unit is being operated and maintained consistent with recognized and generally accepted good engineering standards and practices.

Certified by: Richard Southorn

Date: January 18, 2021

Richard Southorn, P.E.
Professional Engineer Registration No. PE 20894
SCS Engineers



ATTACHMENTS

1. Coal Combustion Residuals Landfill Annual Inspection Checklist and Photographs
2. Annual Inspection Photographs

REFERENCES

1. 2020 Landfill Periodic Inspection Report (dated January 18, 2020)
2. Annual Landfill Operations Reports, NRG Energy Indian River Generating Station
3. 40 Code of Federal Regulations Part 257.
4. Routine Inspection Reports.
5. DNREC Solid Waste Permit No. 12/01
6. CCR Rule Documents on NRG website (<https://www.nrg.com/legal/coal-combustion-residuals.html>)

Attachment 1 – Coal Combustion Residuals Landfill Annual Inspection Checklist and Photographs

Attachment 2 – Annual Inspection Photographs

Attachment 1

Coal Combustion Residuals Landfill

Annual Inspection Checklist

CCR LANDFILL ANNUAL INSPECTION CHECKLIST

Facility Name	Feature	Inspection Date	
Indian River Landfill	Indian River Landfill	November 4, 2021	
Station/Owner		State	
Indian River Power (NRG)		Delaware	
Inspected By	Phone No.	Type of Landfill	
Richard Southorn	(630) 280-8125	<input checked="" type="checkbox"/> Active	<input type="checkbox"/> Closed
Weather			Temperature (°F)
<input type="checkbox"/> Wet	<input checked="" type="checkbox"/> Dry	<input type="checkbox"/> Snow Cover	<input type="checkbox"/> Other:
			45
Total precipitation last 24 hours (in)			
0			
Remarks:			
Annual inspection by qualified engineer.			

CHECKS AND OBSERVATIONS					
OPERATIONS	1. Is the haul route maintained?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	2. Are stormwater BMPs inspected and serviceable?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	3. Is the leachate system functional?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	4. Is there evidence of erosion?		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
	5. Are stormwater retention basins functioning properly?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	Comments / Action Items				
Actions	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Maintenance	<input type="checkbox"/> Monitoring	<input type="checkbox"/> Minor Repair	<input type="checkbox"/> Engineering

PROBLEMS					COVER
UPPER LANDFILL SURFACE	<input checked="" type="checkbox"/> 1. None	<input type="checkbox"/> 5. Vegetation, brush	<input type="checkbox"/> 9. Settlement	<input type="checkbox"/> 13. Seepage	<input checked="" type="checkbox"/> Vegetation
	<input type="checkbox"/> 2. Animal burrows	<input type="checkbox"/> 6. Vegetation, islands	<input type="checkbox"/> 10. Cracks	<input type="checkbox"/> 14. Ponding	<input type="checkbox"/> Gravel
	<input type="checkbox"/> 3. Animal damage	<input type="checkbox"/> 7. Poor grass cover	<input type="checkbox"/> 11. Erosion	<input type="checkbox"/> 15. Bare spots	<input type="checkbox"/> Soil
	<input type="checkbox"/> 4. Trees, large brush	<input type="checkbox"/> 8. Slope stability	<input type="checkbox"/> 12. Rills	<input type="checkbox"/> 16. Other:	<input checked="" type="checkbox"/> Other: CCR
	Comments / Action Items				
Actions	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Maintenance	<input type="checkbox"/> Monitoring	<input type="checkbox"/> Minor Repair	<input type="checkbox"/> Engineering

SLOPES AND PERIMETER BERMS	PROBLEMS				COVER
	<input checked="" type="checkbox"/> 1. None	<input type="checkbox"/> 5. Vegetation, brush	<input type="checkbox"/> 9. Settlement	<input type="checkbox"/> 13. Seepage	<input checked="" type="checkbox"/> Vegetation
	<input type="checkbox"/> 2. Animal burrows	<input type="checkbox"/> 6. Vegetation, islands	<input type="checkbox"/> 10. Cracks	<input type="checkbox"/> 14. Ponding	<input type="checkbox"/> Gravel
	<input type="checkbox"/> 3. Animal damage	<input type="checkbox"/> 7. Poor grass cover	<input type="checkbox"/> 11. Erosion	<input type="checkbox"/> 15. Bare spots	<input type="checkbox"/> Soil
	<input type="checkbox"/> 4. Trees, large brush	<input type="checkbox"/> 8. Slope stability	<input type="checkbox"/> 12. Rills	<input type="checkbox"/> 16. Other:	<input type="checkbox"/> Other:
OBSERVATIONS					
1. Do slopes and berms provide positive drainage?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
2. Is there exposed waste on exterior slopes?			<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
Comments / Action Items					
None.					
Actions	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Maintenance	<input type="checkbox"/> Monitoring	<input type="checkbox"/> Minor Repair	<input type="checkbox"/> Engineering

LEACHATE SYSTEM	PROBLEMS				
	<input type="checkbox"/> 1. None	<input type="checkbox"/> 3. Piping leaking	<input type="checkbox"/> 5. Tank leaking		
	<input type="checkbox"/> 2. Sump	<input type="checkbox"/> 4. Containment leaking	<input checked="" type="checkbox"/> 6. Other: Elevated Leachate Levels		
OBSERVATIONS					
1. Is the leachate transmission system functioning properly?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Comments / Action Items					
Phase II Cell 2 has reported leachate levels greater than one foot during periods in 2021.					
Actions	<input type="checkbox"/> None	<input type="checkbox"/> Maintenance	<input checked="" type="checkbox"/> Monitoring	<input type="checkbox"/> Minor Repair	<input type="checkbox"/> Engineering

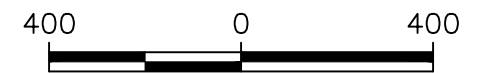
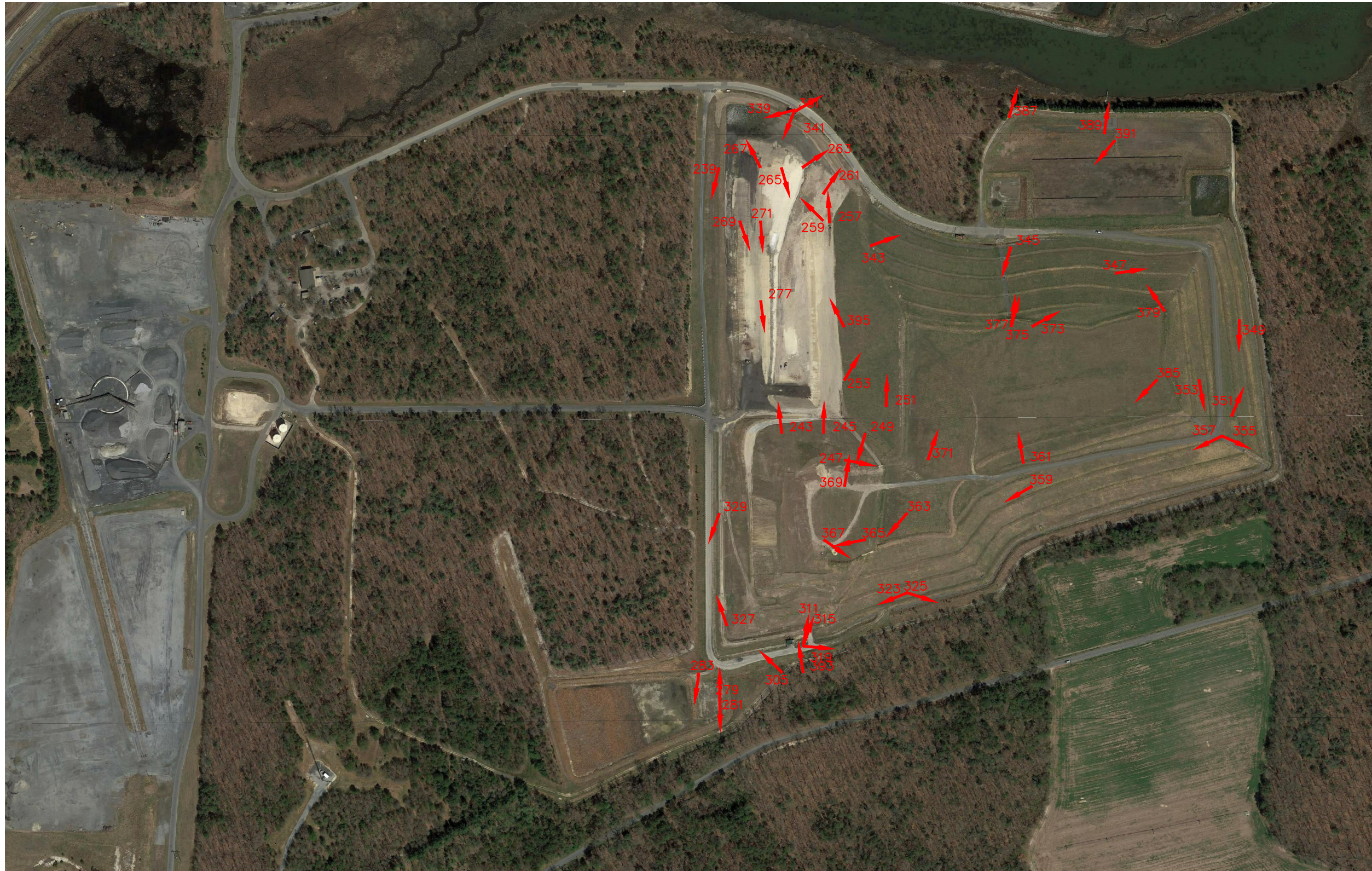
EROSION AND SEDIMENT CONTROLS	PROBLEMS					
	<input checked="" type="checkbox"/> 1. None	<input type="checkbox"/> 3. Ditch failure	<input type="checkbox"/> 5. Debris	<input type="checkbox"/> 7. Silt fences	<input type="checkbox"/> 9. Riprap aprons	
	<input type="checkbox"/> 2. Channel	<input type="checkbox"/> 4. Ditch washouts	<input type="checkbox"/> 6. Sediment	<input type="checkbox"/> 8. Filter socks	<input type="checkbox"/> 10. Other:	
	OBSERVATIONS					
	1. Are erosion or sediment controls in place?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
	2. Are drop structures in good repair?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	3. Are perimeter run-on diversion ditches present and in good repair?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	4. Are perimeter run-off diversion ditches present and in good repair?			<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
	Comments / Action Items					
	None.					
Actions	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Maintenance	<input type="checkbox"/> Monitoring	<input type="checkbox"/> Minor Repair	<input type="checkbox"/> Engineering	

Inspector's Signature: 

Date: Nov 4, 2021

Attachment 2

Coal Combustion Residuals Landfill Annual Inspection Photographs




SCALE: 1" = 400'


PROJECT NO.	25221158.00	DRAWN BY:	NV	ENGINEER SCS ENGINEERS 2830 DAIRY DRIVE MADISON, WI 53718-6751 PHONE: (608) 224-2830	CLIENT INDIAN RIVER GENERATING STATION DAGSBORO, DE	SITE INDIAN RIVER LANDFILL DAGSBORO, DE	2021 ANNUAL INSPECTION PHOTOGRAPH LOCATION MAP	FIGURE
DRAWN:	12/14/2021	CHECKED BY:	ZC					1 OF 1
REVISED:	N/A	APPROVED BY:	RDS					


**Indian River Landfill – 2021 Annual Inspection
Dagsboro, DE
SCS Engineers Project #25221158.00**

<p>Image Number: 239 Date: 11/4/2021 Time: 8:13 AM Direction: South-Southeast</p>	
<p>Description: Outer sideslope of Phase II Cell 2. Sideslope is well vegetated and maintained. No signs of vegetative stress or geotechnical instability.</p>	

<p>Image Number: 243 Date: 11/4/2021 Time: 8:17 AM Direction: North</p>	
<p>Description: Active face is well maintained. Material is graded and compacted.</p>	


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<p>Image Number: 245 Date: 11/4/2021 Time: 8:18 AM Direction: North</p>	
<p>Description: Active face is well maintained. Material is graded and compacted.</p>	


<p>Image Number: 247 Date: 11/4/2021 Time: 8:19 AM Direction: West</p>	
<p>Description: Phase II Cell 1/Cell 2 boundary. Slopes are well vegetated with no sign of erosion, sloughing, or animal borrows.</p>	


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<p>Image Number: 249 Date: 11/4/2021 Time: 8:20 AM Direction: South-Southeast</p>	
<p>Description: Elbow of Phase I/Phase II Cell 1 confluence, looking upslope. Vegetation is thick and healthy.</p>	


<p>Image Number: 251 Date: 11/4/2021 Time: 8:21 AM Direction: North</p>	
<p>Description: Overview of active face and Phase I intermediate cover slopes. Slopes are well vegetated with no sign of erosion or sloughing.</p>	


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<p>Image Number: 253 Date: 11/4/2021 Time: 8:22 AM Direction: North-Northwest</p> <hr/> <p>Description: Active face is background well maintained and orderly. Material is graded and compacted. Intermediate cover soils in foreground have been installed at the toe of the Phase I slope to collect and transfer non-contact water to the north and away from the active area.</p>	
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<p>Image Number: 257 Date: 11/4/2021 Time: 8:26 AM Direction: North</p> <hr/> <p>Description: Intermediate cover soils at the toe of the Phase I slope drain to the north to this location. Non-contact water enters into the pipe shown in the middle of the photograph and are conveyed to the adjacent landfill perimeter (non-contact water) ditch.</p>	
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**Indian River Landfill – 2021 Annual Inspection
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<p>Image Number: 259 Date: 11/4/2021 Time: 8:36 AM Direction: Northwest</p>	
<p>Description: Looking across active area toward sump, with intermediate cover soils in foreground. Well maintained. No erosion or scour.</p>	

<p>Image Number: 261 Date: 11/4/2021 Time: 8:40 AM Direction: Northwest</p>	
<p>Description: The slope of the active face slopes to the north toward a sump area. Shallow berms are placed perpendicular to the slope to slow contact water and prevent erosion. At the toe of the berms, contact water enters pipes, which direct contact water toward the sump. Pipe discharge location is shown.</p>	

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Image Number: 263 Date: 11/4/2021 Time: 8:42 AM Direction: Northwest	
Description: Sump area of Phase II Cell 2. No standing water.	

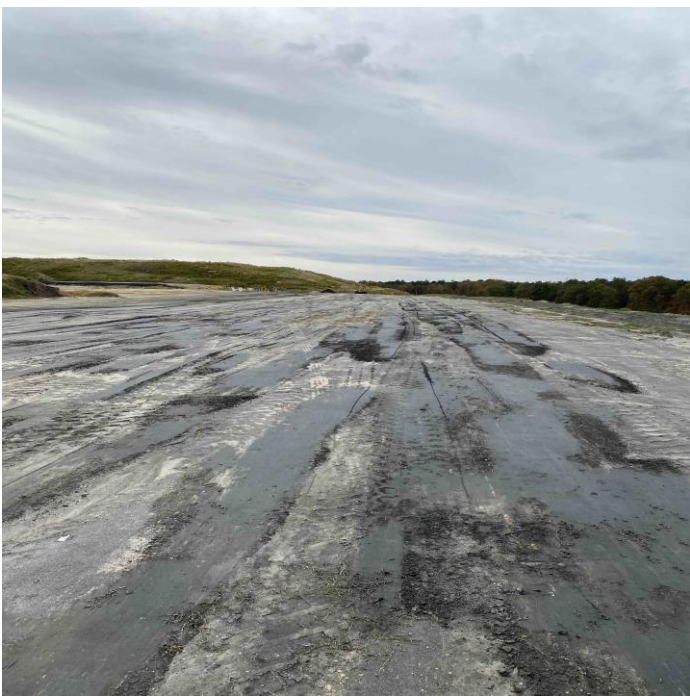
Image Number: 265 Date: 11/4/2021 Time: 8:42 AM Direction: South-Southwest	
Description: The slope of the active face is slopes to the north toward the active face. Shallow berms are placed perpendicular to the slope to slow contact water and prevent erosion. At the toe of the berms, contact water enters pipes, which direct contact water toward the sump. Pipe discharge location is shown.	


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<p>Image Number: 267 Date: 11/4/2021 Time: 8:43 AM Direction: North-Northeast</p>	
<p>Description: Sump area of Phase II Cell 2. No standing water.</p>	


<p>Image Number: 269 Date: 11/4/2021 Time: 8:45 AM Direction: South-Southwest</p>	
<p>Description: Outer berm of Phase II Cell 2. Berm is in good condition with healthy vegetation. No signs of erosion, sloughing, geotechnical distress, or animal burrows.</p>	

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<p>Image Number: 271 Date: 11/4/2021 Time: 8:46 AM Direction: South</p>	
<p>Description: Active face is well maintained.</p>	


<p>Image Number: 277 Date: 11/4/2021 Time: 8:49 AM Direction: South</p>	
<p>Description: Active face is well maintained.</p>	

**Indian River Landfill – 2021 Annual Inspection
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<p>Image Number: 279 Date: 11/4/2021 Time: 9:03 AM Direction: Northeast</p>	
<p>Description: Inlets to stormwater basin. Clear of obstruction at inlets and outlets.</p>	

<p>Image Number: 281 Date: 11/4/2021 Time: 9:04 AM Direction: South</p>	
<p>Description: Southwest stormwater basin, well maintained.</p>	

**Indian River Landfill – 2021 Annual Inspection
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<p>Image Number: 283 Date: 11/4/2021 Time: 9:04 AM Direction: South</p>	
<p>Description: Stormwater basin forebay. In good condition.</p>	

<p>Image Number: 305 Date: 11/4/2021 Time: 9:16 AM Direction: Northeast</p>	
<p>Description: Phase I, Cell 1 leachate pump house and stormwater culvert. Building is appropriately signed. Culvert is free of obstructions.</p>	

**Indian River Landfill – 2021 Annual Inspection
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Image Number: 311
Date: 11/4/2021
Time: 9:17 AM
Direction: North

Description:
Inside Phase I, Cell 1 Leachate Pump House. Cleanout riser and pump risers with T connection to forcemain shown. Building is well maintained.



Image Number: 315
Date: 11/4/2021
Time: 9:18 AM
Direction: North-Northwest

Description:
Phase I, Cell 1 leachate instrument panel. Good working order.




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<p>Image Number: 319 Date: 11/4/2021 Time: 9:19 AM Direction: West</p>	
<p>Description: Vegetative cover is dense and healthy.</p>	

<p>Image Number: 323 Date: 11/4/2021 Time: 9:38 AM Direction: East-Southeast</p>	
<p>Description: Terrace berm. Clear of obstructions and functioning as intended. Vegetative cover is dense and healthy.</p>	

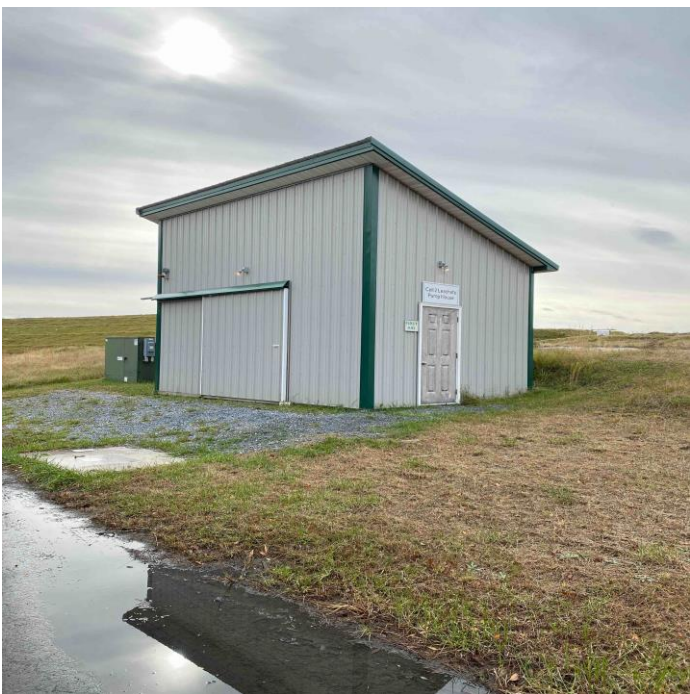
**Indian River Landfill – 2021 Annual Inspection
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<p>Image Number: 325 Date: 11/4/2021 Time: 9:39 AM Direction: West-Southwest</p>	
<p>Description: Vegetative cover is dense and healthy.</p>	

<p>Image Number: 327 Date: 11/4/2021 Time: 9:43 AM Direction: North-Northeast</p>	
<p>Description: Final cover on sideslopes of Phase II Cell 1. Vegetation is healthy with full coverage. No signs of erosion stability issues observed on sideslope.</p>	

**Indian River Landfill – 2021 Annual Inspection
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Image Number: 329 Date: 11/4/2021 Time: 9:45 AM Direction: South-Southeast	
Description: Final cover on sideslopes of Phase II Cell 1. Vegetation is healthy with full coverage. No signs of erosion stability issues observed on sideslope.	

Image Number: 331 Date: 11/4/2021 Time: 9:47 AM Direction: South-Southeast	
Description: Phase II, Cell 2 leachate pump house. Building exterior is in good condition and appropriately signed.	

**Indian River Landfill – 2021 Annual Inspection
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Image Number: 339
Date: 11/4/2021
Time: 9:49 AM
Direction: East-Southeast

Description:
Leachate liquid level indicator and controls in the Phase II, Cell 2 leachate pump house.





Image Number: 341
Date: 11/4/2021
Time: 9:49 AM
Direction: West-Southwest

Description:
Inside Phase II, Cell 2 Leachate Pump House. Cleanout riser and pump risers with T connection to forcemain shown. Building is well maintained.




**Indian River Landfill – 2021 Annual Inspection
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<p>Image Number: 343 Date: 11/4/2021 Time: 9:53 AM Direction: East-Southeast</p>	
<p>Description: Landfilll sideslopes and terraces are well maintained. No evidence of slope stability issues.</p>	


<p>Image Number: 345 Date: 11/5/2021 Time: 1:22 PM Direction: South-Southeast</p>	
<p>Description: Downchute near southwest forebay of Northeast Detention Basin. The side outlet pipe detached in 2021 and was repaired, as documented in the operating record and communicated to DNREC. Pipe and downchute appear to be functioning appropriately as intended.</p>	


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<p>Image Number: 347 Date: 11/6/2021 Time: 1:23 PM Direction: West</p>	
<p>Description: Phase I final cover. Vegetative cover is dense and healthy.</p>	

<p>Image Number: 349 Date: 11/7/2021 Time: 1:26 PM Direction: South</p>	
<p>Description: Phase I terrace berm and sideslopes. Clear of obstructions and functioning as intended. Vegetative cover is dense and healthy.</p>	

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<p>Image Number: 351 Date: 11/8/2021 Time: 1:27 PM Direction: North-Northwest</p>	
<p>Description: Phase I terrace berm and sideslopes. Clear of obstructions and functioning as intended. Vegetative cover is dense and healthy.</p>	

<p>Image Number: 353 Date: 11/9/2021 Time: 1:27 PM Direction: South</p>	
<p>Description: Phase I terrace berm and sideslopes. Clear of obstructions and functioning as intended. Vegetative cover is dense and healthy.</p>	


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<p>Image Number: 355 Date: 11/10/2021 Time: 1:31 PM Direction: East-Southeast</p>	 A photograph showing a gravelly area, likely a downchute road, with several metal grates covering pipes. The area is surrounded by trees and vegetation.
<p>Description: Phase I corner downchute road crossing equalizing pipes. Free of obstructions.</p>	

<p>Image Number: 357 Date: 11/11/2021 Time: 1:32 PM Direction: West-Southwest</p>	 A photograph showing a grassy field, likely the Phase I final cover, with dense and healthy vegetation. The sky is overcast.
<p>Description: Phase I final cover. Vegetative cover is dense and healthy.</p>	


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<p>Image Number: 359 Date: 11/12/2021 Time: 1:33 PM Direction: Southwest</p>	
<p>Description: Phase I final cover. Vegetative cover is dense and healthy.</p>	


<p>Image Number: 361 Date: 11/13/2021 Time: 1:34 PM Direction: North-Northwest</p>	
<p>Description: Letdown pipe location from plateau terrace into access road ditch. Free draining. No evidence of erosion.</p>	


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Image Number: 363 Date: 11/14/2021 Time: 1:35 PM Direction: Southeast	
Description: Final cover on plateau. Vegetation is well established. No signs of animal burrows or erosion.	


Image Number: 365 Date: 11/15/2021 Time: 1:36 PM Direction: East	
Description: Final cover on plateau. Vegetation is well established. No signs of animal burrows or erosion.	


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<p>Image Number: 367 Date: 11/16/2021 Time: 1:37 PM Direction: Southwest</p>	
<p>Description: Final cover on plateau. Vegetation is well established. No signs of animal burrows or erosion.</p>	

<p>Image Number: 369 Date: 11/17/2021 Time: 1:38 PM Direction: North</p>	
<p>Description: Final cover on plateau. Vegetation is well established. No signs of animal burrows or erosion. Overlooking Phase II, Cell 2 active area from Phase II Cell 1 plateau.</p>	


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<p>Image Number: 371 Date: 11/18/2021 Time: 1:39 PM Direction: North-Northwest</p>	
<p>Description: Final cover on plateau. Vegetation is well established. No signs of animal burrows or erosion.</p>	


<p>Image Number: 373 Date: 11/19/2021 Time: 1:40 PM Direction: West-Northwest</p>	
<p>Description: Sideslope overview from plateau. Well maintained.</p>	


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<p>Image Number: 375 Date: 11/20/2021 Time: 1:40 PM Direction: North-Northwest</p>	
<p>Description: Downchute inlet, free of obstructions.</p>	

<p>Image Number: 377 Date: 11/21/2021 Time: 1:41 PM Direction: North</p>	
<p>Description: Downchute from plateau area. Functioning as intended.</p>	

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<p>Image Number: 379 Date: 11/22/2021 Time: 1:42 PM Direction: Northeast</p>	
<p>Description: Downchute inlet, free of obstructions.</p>	

<p>Image Number: 385 Date: 11/25/2021 Time: 1:44 PM Direction: Southeast</p>	
<p>Description: Final cover on plateau. Vegetation is well established. No signs of animal burrows or erosion.</p>	

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Image Number: 387
Date: 11/26/2021
Time: 1:47 PM
Direction: North-Northwest

Description:
Monitoring well cluster.



Image Number: 389
Date: 11/27/2021
Time: 1:48 PM
Direction: North

Description:
Northeast Detention Basin outlet skimmer.



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<p>Image Number: 391 Date: 11/28/2021 Time: 1:48 PM Direction: Southwest</p>	
<p>Description: Northeast Detention Basin (Non-Contact Water). No ponding water outside of forebay areas.</p>	