

VERIFICATION REPORT

Climate Action Reserve

CAR#560 New River Landfill Gas Methane Destruction Project

Reporting Period:
01 January 2024 to 31 December 2024

Prepared for:
New River Resource Authority



CLIMATE ACTION RESERVE

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Summary

This report presents the findings of the verification assessment of the New River Landfill Gas Methane Destruction Project (“the Project”) located at 7100 Cloyds Mountain Road, Dublin, VA and developed by New River Resource Authority (“the Project Developer”) and with the help of SCS Engineers as technical consultants. This assessment covers the Project’s greenhouse gas emission reductions reported to the Climate Action Reserve (the Reserve or CAR) for the reporting period of January 1, 2024 to December 31, 2024. The verification was undertaken to evaluate New River Resources’ GHG Monitoring Plan and assess whether the compiled data conforms to the requirements of the Climate Action Reserve U.S. Landfill Protocol, Version 6, June 8, 2022.

The evaluation was undertaken using the Reserve’s U.S. Landfill Protocol, Version 6, June 8, 2022, as well as the other verification criteria listed in this report.

In the course of the verification assessment, the SCS verifiers developed findings which included New Information Requests (NIRs), Non-Conformity Reports (NCRs) and Observations (OBS). The findings of all NIRs and NCRs have been adequately responded to, resulting in their closure, along with OBS’s that are closed upon issuance

On the basis of the information provided and the analysis completed, SCS was able to reach a decision on the emissions reductions reported by the Project Developer to the Reserve. SCS verified the adequacy of the information provided in the Project Developer’s Project Monitoring Plan confirming that this document meets the requirements of the Reserve U.S. Landfill Protocol, Version 6.

Thus, SCS was able to reach a positive opinion on the claimed emission reductions presented in the Project Monitoring Plan and the Project Developer’s calculations. Thus, SCS has verified 43,657 metric tonnes of CO₂e reductions from the New River Landfill Gas Methane Destruction Project for the January 1, 2024, to December 31, 2024, reporting period

Introduction

SCS Global Services (SCS) is a global leader in third-party certification, auditing, testing services, and standards. Established as an independent third-party certification firm in 1984, our goal is to recognize the highest levels of performance in environmental protection and social responsibility in the private and public sectors, and to stimulate continuous improvement in sustainable development. In 2012, Scientific Certification Systems, Inc. began doing business as SCS Global Services, communicating its global position with offices and representatives in over 20 countries.

SCS' Greenhouse Gas (GHG) Verification Program has been verifying carbon offsets since 2008 and to date has verified nearly 385 million tonnes of CO₂e, providing GHG verification services to a wide array of industries including manufacturing, transportation, municipalities, and non-profit organizations. The GHG Verification Program draws upon SCS's established expertise to serve the global carbon market.

SCS was engaged by the Project Developer to undertake the annual project verification of the Project which is located at 7100 Cloyds Mountain Road, Dublin, VA.. The project activities include the operation of a voluntary gas collection system that captures and destroys methane emissions. This is achieved through a network of gas wells, conveyance piping, and condensate removal equipment. The collected landfill gas (LFG) is either burned off using an open flare or sent to an on-site energy generation facility of 12 electricity generating engines. SCS Engineers acted as technical consultants for this project with various roles including developing a current project monitoring plan and performing many of the monitoring activities described in the plan, performing all calculations involved with determining emission reductions, etc.

The New River Resource Authority Landfill is a municipal landfill as described by NAICS code 562212 ("Solid Waste Landfill".) The New River Resource Authority Regional Solid Waste Management Facility is owned and operated by the Project Developer and is located approximately 6 miles north of the town of Dublin, Virginia.

The New River Resource Authority owns the gas collection system and flare and emission reduction credits, while Archaea Energy (formerly Ingenco) owns the electricity generation facility. SCS Global Services is responsible for expressing the opinion in this Verification Report on the GHG Opinion based on the outcome of this verification process.

This report covers the reporting period of January 1, 2024 to December 31 2024.

Verification Team

The SCS verification team consisted of the following individuals:

Lead Verifier: Mark Lutz

Senior Internal Reviewer: Michelle Hirst

Verification Details

Verification Objectives

The objective of the verification is to:

- Evaluate conformance with the project as defined in the criteria stated below.
- Determine with a reasonable level of assurance whether the Project has resulted in the GHG emissions reductions and/or removals as stated in the project documents.
- Evaluate the project planning information and documentation including the determination of project eligibility, project design, baseline and project emissions determination, management systems supporting the project, and methodologies employed for the calculation of GHG emission reductions.

Verification Criteria

SCS conducted the verification assessment of the project and project documentation against the following criteria:

- CAR Offset Program Manual, Version 9.2 (April 2024)
- CAR Verification Program Manual (February 2021)
- U.S. Landfill Protocol, Version 6.0 (June 2022)
- Errata and Clarifications to U.S. Landfill Project Protocol Version 6.0, April 2023.

As an ANSI-accredited verification body, SCS conducted the verification to the requirements of:

- CAR Verification Program Manual (February 2021)
- ISO 14064-3: 2019, Greenhouse Gases – Part 3: Specification with guidance for the verification and validation of greenhouse gas statements

Level of Assurance

SCS performed the core verification activities to a **reasonable level** of assurance as required by CAR.

Treatment of Materiality

In consideration of the required level of assurance, the needs of the intended user and the requirements of the CAR Program, SCS applied a materiality threshold of **3%** because the total annual emissions reductions are between 25,000 tCO₂e and 100,000 tCO₂e per protocol requirements. The data reviewed was considered to meet the principles of accuracy, completeness, transparency and is free of material error or omission.

Scope

The scope of the verification is defined as an independent and objective review of the project description document, the project's baseline study, monitoring plan, project data report and emissions reductions

calculation. SCS conducted the verification of greenhouse gas emission reductions from the New River Resource Authority Landfill Project against the requirements of the verification criteria.

Verification Process

Verification Summary

The verification process consisted of the following:

1. **Project listed with the Reserve:**

The Project is listed on the Reserve website. The Project Developer selected SCS as their verification body.

2. **Conflict of Interest Review.**

A Notification of Verification Activities/Conflict of Interest (NOVA/COI) form was submitted on March 14, 2025 and the Climate Action Reserve determination was made on March 20, 2025. The COI assessment was conducted to identify any potential conflicts interests with the verification/project. No conflicts were identified and a determination of low potential for conflict of interest was received from the Climate Action Reserve on May 8, 2025 prior to the commencement of verification activities. (The May 8, 2025 COI determination was made because of changes in the kickoff and site visit dates.)

3. **Introductory Meeting:**

A kick-off meeting was conducted between the verification team and the Project Developer on 1 April 2025. The purpose of the kick-off meeting was to review the timeline of verification; confirm verification criteria; determine any changes in the site, sources, GHG management systems or personnel; and to begin gathering information.

4. **Desk Review**

SCS received and reviewed the Project Data Report ("PDR"), 2024 GHG Monitoring Plan_ Protocol CAR submittals, and supporting documentation to assess initial conformance with the data requirements of the CAR U.S. Landfill Protocol V6. The verification team created an evidence gathering which includes a strategic analysis and risk assessment. In accordance with the evidence gathering plan, the verification team identified the risk of a material misstatement or nonconformity with the verification criteria. and considered the results of the materiality assessment. Additionally, a verification plan was created to focus on the critical elements presenting potential risk for errors with the project.

5. **Site Visit**

A site visit was conducted by the verification team on 02 May 2025. The purpose of the site visit is to verify the project equipment, location and eligibility; to review and evaluate the project GHG management systems, data collection and handling, and emission reduction calculations and procedures in place; and to finalize the evidence gathering plan.

6. Quantitative Review

An assessment of the emission reduction calculation inputs and procedures was performed to review the quantitative analyses undertaken by the Project Developer to convert the raw inventory data into emission reduction estimates.

7. Findings

Throughout the verification, there is an iterative exchange between SCS and the Project Developer to gather additional information for review and examination. This exchange includes the issuance of Findings which are identified as NIR, NCR and OBS — by SCS. The Project Developer must respond to NIRs and NCRs in order for SCS to render a verification opinion. At this time, all findings have been appropriately addressed by the Project Developer and subsequently closed by SCS.

8. Draft Verification Report and Opinion

This step in the verification process includes a final review of the submitted data, completion of the draft Verification Report, and drafting of the Verification Opinion. A draft Verification Report and Opinion are completed based on the results of the verification assessment.

9. Senior Internal Reviewer

The draft verification report was presented to the Senior Internal Reviewer, independent of the verification, who determined the Verification Opinion to be justified given the evidence presented. The draft Verification Report and draft Verification Opinion were then presented to the Project Developer for review and comment.

10. Closing meeting with New River Resource Authority

The closing meeting entails a review of the verification process and a summary of the verification findings.

11. Final Verification Report and Opinion

Once the Project Developer approved these documents, SCS uploaded them to the Reserve website for administrative review by CAR. Given a positive review, CAR will register the emissions reductions for the project and issue carbon tonnes for a reporting period of 01 January 2024 to 31 December 2024.

Verification Findings

Our core verification activities of the Project were confirming eligibility criteria, reviewing data, identifying SSR's associated with the project, reviewing management systems and verifying the project's emission estimates. SCS verified the Project against the requirements of the U.S. Landfill Protocol, Version 6.0. The following sections detail the most essential aspects of the verification of the Project.

Project Eligibility

The CAR U.S Landfill Protocol, v 6.0 specifies eligibility rules that the Project must meet in order to register reductions with the Reserve. Below is a summary of the eligibility requirements and the Project's compliance to each requirement.

Location

The New River Landfill Gas Methane Destruction Project is located at 7100 Cloyds Mountain Road, Dublin, VA in the U.S. and therefore meets this eligibility requirement (Per section 3.1 of the U.S. Landfill Protocol, ("... only projects located at landfills in the United States and its tribal lands and territories are eligible to register with the Reserve.") SCS confirmed the location during the site visit on 02 May 2025.

Project Start Date

The start date is defined as the date at which New River Landfill Gas Methane Destruction Project's activities had begun. As stated in the U.S. Landfill Protocol, v6.0, to be eligible, the project must be submitted to the Reserve no more than 12 months after the project start date.

The Project was listed with the Reserve on 30 November 2009, which was within 12 months after the publication of version 2.1 of the U.S Landfill Project Protocol. The project start date occurred on 14 January 2008, the day the open flare became operational on a continuous basis. SCS Global Services reviewed flare data monitoring forms that show the first time (14 January 2008) flow and methane content were recorded and a letter from the SCS Engineers that mentioned a 14 January 2008 startup date.

Based on this review, SCS Global Services had confirmed the start date of the Project and that the Project was listed with the Climate Action Reserve within 12 months of the effective date of the adaption of Version 2.1 of the protocol on 14 October 2009 per Reserve guidelines.

SCS concluded that these documents supported the project start date listed on the Reserve's Website and the Project therefore meets the start date eligibility criteria of the Protocol.

Crediting Period

The crediting period for "U.S. Landfill Protocol.", v6 projects is 10 years from the project start date. The 1st crediting period for landfill projects is 10 years from the project start date of January 14, 2008. The first crediting period for this project ended January 13, 2018. However, credits were last issued through December, 2017 of the first crediting period. The Project Developer became ineligible to participate with CAR under the U.S. Landfill Protocol version 4.0 due to a size threshold which limited the eligibility of this project. Later Landfill protocols removed this size threshold, and this project was able to re-register with CAR for a second crediting period under the U.S. Landfill Protocol version 5.0. A zero-credit reporting period (ZCRP) was issued from December 12, 2017 through December 31, 2018. The Project Developer met the eligibility requirements for the 2nd crediting period and re-registration of the project was confirmed on the CAR online portal October 19, 2020. The 2nd crediting period is from January 14 2018

and extends to January 13, 2028. (Note: For this reporting period, the project developer is electing to claim GHG Emissions Reductions per the most recent version of the U.S. Landfill Protocol, version 6.0.)

SCS has concluded that the reporting period verified in this report is within this project's second crediting period of the Project.

Additionality

Project Developers must indicate that reductions are above and beyond business as usual. In order to do so, the Project must pass a Legal Requirements Test and a Performance Standard test..

Legal Requirements Test

For the Legal Requirements Test, the Project Developer must ensure that emission reductions achieved by the Project would not have occurred in the baseline case due to federal, state, or local regulations.

The verification team conducted a regulatory review of the Project and the landfill that hosts the Project. The results of the regulatory review indicated the landfill is in compliance with Federal, State and Local regulations. There are no laws, statutes, regulations, court orders, environmental mitigation agreements, permitting conditions, or other legally binding mandates requiring the destruction of landfill gas at the New River Resource Landfill. The Project Proponent has also developed a procedure in the GHG Monitoring Plan_Protocol to ascertain and demonstrate that the project at all times passes the legal requirements test. The verification team reviewed the plan, the Virginia Department of Environmental Quality (VDEQ) Title 5 Air Permit (last issued 17 December 2023 with a 16 December 2028 expiration date) and the Regional Landfill – Solid Waste Permit No. 548 (issued 15 January, 1993 with the last modification 22 August 2002, with no expiration date), and found no requirements to install a gas collection system.

In addition, the Project Developer has conducted a non-methane organic compound (NMOC) Threshold review. The New River Resource Landfill is subject to the federal New Source Performance Standards ("NSPS") regulation requiring the facility to conduct Non-Methane Organic Compound (NMOC) mission rate testing. The most recent Tier 2 NMOC Emission Rate Report for the New River Resource Landfill was conducted on 21 April, 2021 with a result of 22.5 Mg/year NMOC projected for 2024 and 21.6 Mg/yr NMOC projected the previous year in 2023. This is below the 34 Mg/yr threshold and therefore the landfill is not required to install a gas collection and conveyance system during the reporting period.

Lastly, SCS reviewed the Attestation of Voluntary Implementation, signed on 28 February 2025 by an eligible signatory to attest for the Project. The Project Developer has affirmed that the Project was established and implemented voluntarily and continues to operate as such. Based on this evidence, SCS concludes the Project passes the Legal Requirements Test.

Performance Standard Test

For the Performance Standard Test, a project developer may meet eligibility (under scenario #3a, Section 3.4.1 of the CAR Protocol) of the possible performance threshold scenarios. The following scenario applies to the project:

“Installation of a new qualifying destruction device at an eligible landfill where landfill gas was collected and destroyed at any time prior to the project start date using: ... 3a. A non-qualifying destruction device (e.g. passive flares.)”

The landfill had originally installed two passive vent wellhead flares on leachate cleanout riser pipes for the purposes of odor control. Only one of those passive flares ever operated and destroyed landfill gas. The second passive flare never was in operation and did not combust LFG while attached to the leachate pipe. These units were decommissioned during November 2007 to accommodate the connection to the active LFG collection system.

With the removal of the passive flares and the installation of the present project system, the Project clearly meets the performance standard test criteria of the Reserve’s U.S. Landfill Protocol, V6.0. As required by this protocol, baseline landfill gas emissions have been calculated to include a deduction for the pre-project destruction of LFG by the formerly operating non-qualifying device.

The documents and interviews mentioned above support the scenario described above and meet the performance threshold.

Regulatory Compliance

SCS reviewed the Attestation of Regulatory Compliance submitted by the Project Developer dated 28 February 2025 affirming the Project’s compliance status throughout the reporting period. During the site visit 2 May 2025 and desk review activities, SCS was able to confirm to a reasonable level of assurance that the Project is in compliance with local, state and Federal regulations and had no material regulatory non-conformance events.

SCS reviewed the process for monitoring New River Landfill Authority’s environmental and operating permits in reference to its Title V permits for both the flare and LFGE facilities ((issued 15 January, 1993 with the last modification 22 August 2002, with no expiration date), the Landfill’s Solid Waste Management Permit (issued 15 January, 1993 with the last modification 22 August 2002, with no expiration date), and the Landfill’s Virginia General Stormwater Industrial Discharge Permit (issued 1 July 2019 with an expiration date of 30 June, 2025).

SCS also reviewed, 6 October 2025, the online EPA Enforcement & Compliance History Online database (ECHO) and found one instance of non-compliance for this landfill on 4 December 2024: “Exceedance of the Ammonia Nitrogen permit limit of 264 mg/L ...” Per the details of the corrective action needed and with the assistance of a 3rd party engineering company, corrective / preventive actions were begun to resolve this issue. This is considered a wastewater discharge issue that is not

related to the landfill gas collection & destruction system. The verification team noted that the landfill's remedial actions addressed these violations which included 3rd party engineering company's corrective / preventive actions being taken to resolve this issue on 4 January, 2025.

Our verification team also noted that these violations were disclosed by the Project Developer during the verification, that it was not related to the project itself, and that this issue was not recurrent or the result of negligence or intent.

Lastly, SCS also confirmed the Project monitoring plan contained procedures for maintaining and monitoring regulatory compliance and that the procedures were being properly followed.

With these reviews, SCS concludes that the results of this regulatory review indicated that the Project was in compliance with Federal, State and Local regulations. Based on this review, SCS concludes the Project met the regulatory compliance requirements of the U.S Landfill Protocol, v6.

Ownership

The Project Developer is the sole owner of the New River Resource Landfill. Ownership was confirmed through review of various regulatory permits issued from VDEQ, an interview with New River Resource Authority management and invoices for the purchase of electricity for the flare. SCS also reviewed the Landfill gas purchase agreement between New River Resource Authority and Ingenco (now Archaea Energy) entered on 4 May 2011. This agreement confirms the Project Developer retains all rights to any GHG credits, benefits and offsets generated from the sale of the landfill gas. In addition, the verification team verified the contractual scope of work statement that New River Resource Authority executed with SCS Engineers. This agreement was executed on 20 October 2008 and provided for SCS Engineers to provide consulting services to New River Resource Authority to assist it with the monetization of emission credits.

From this evidence, SCS has concluded that the project developer, New River Resource Authority, is entitled to receive the emission reduction credits that may be issued by the Reserve for methane destroyed during this project period.

In addition to the above, the Verification Team verified confirmed that the landfill is not a bioreactor and does not re-circulate leachate nor add any liquid other than leachate in a controlled fashion to accelerate or enhance the anaerobic biodegradation of the waste.

Lastly, SCS reviewed the Attestation of Title signed on 28 February 2025 by an eligible signatory to attest for the Project.

From this evidence, SCS has concluded that the Project Developer is entitled to receive the emission reduction credits that may be issued by the Reserve.

The GHG Assessment Boundary

The Project includes all emission sources from the operation of the landfill gas collection system to the ultimate destruction of the landfill gas. The sources of GHG emissions included in the Project are :

The GHG sources, sinks, and reservoirs associated with the baseline scenario are:

- CH₄ vented to the atmosphere and un-combusted CH₄ from landfill gas in a pre-project flare.
- CO₂ from the oxidation of CH₄ by soil bacteria. As the landfill is not covered with a synthetic liner, the CAR U.S. Landfill Protocol, version 6.0 assumption that 10 percent of the methane produced would be naturally oxidized by soil bacteria has been applied.

The GHG sources, sinks, and reservoirs associated with the project are:

- Un-combusted CH₄ from Landfill gas in an open flare and in the internal combustion engines of the power plant.
- CO₂ from the combustion of fossil fuels (diesel for the power plant and propane for the flare) used during operation and maintenance activities for the project activity.
- CO₂ resulting from the consumption of imported electricity.

The greenhouse gases include CO₂ and CH₄. All gases are converted to CO₂ equivalents.

Review of Project GHG Management Systems

During the site visit 2 May 2025, a review of the Project's greenhouse gas management systems with the Project Developer occurred. This review included (during both the site visit and off-site) a detailed look at the Project's data handling and processing procedures, calculations (raw data, aggregated data and supporting data), regulatory and legal documents, calibration records, NOV's, record-keeping and data storage, and quality control and assurance procedures. The following is the result of this review:

Project Monitoring Plan

Per the U.S. Landfill Protocol requirements, the Project Developer provided a Project Monitoring Plan for the Project ("Revised GHG Monitoring Plan_Protocol_2024_reduced.pdf" dated 5 August 2025 and "U.S.-Landfill-PDR-1.docx" dated 15 August 2025). These two documents addressed frequency of data acquisition, flow and methane concentration monitoring, facility and data management systems, QA/QC provisions of monitoring instrumentation, roles of individuals responsible for monitoring activities, a project diagram, a record keeping plan and describes how relevant parameters required by the U.S. Landfill Protocol are to be collected and reported.

Project Monitoring.

The primary data gathered for the Project is landfill gas flow, methane content of the landfill gas destroyed and kWh electricity generation. The Project's monitoring conforms to the requirements of the CAR Protocol, as discussed below.

Flare Flow meter:

The open flare was equipped with a Veris Verabar fixed element (V100-10-H-M) annubar flow meter coupled with a Rosemont Differential Pressure transmitter. Manufacturer calibration was not required for the Verabar fixed element, but bi-annual inspection for any clogging was recommended by the manufacturer. For the Rosemont differential pressure transmitter: the manufacturer suggested calibration once every five years. The Rosemount Transmitter was originally factory calibrated December 2007; the last calibration, 11 December 2024, with the previous calibration done 08 November 2024 – all done by a certified calibration service and all within the 5% drift threshold. The flow meter calibration records showed the activities performed with the “as found/as left” condition of the equipment documented. The position of the flow meter was adequate to ensure laminar flow. The meter calibration frequency met the calibration requirements of the manufacturer. Please refer to Table 1 Project Monitoring for further details on the flare flow meter.

SCS also confirmed via records that the flow meter to the open flare was inspected and cleaned by New River Resource Authority personnel on a quarterly basis within the reporting period (refer to Table 1 for details).

And finally, per the U.S Landfill Protocol, v6, the protocol requires that all gas flow meters are: *"Field checked for calibration accuracy by a third-party technician with the percent drift documented ...at the end of – but no more than two months prior to or after – the end date of the reporting period."* SCS confirmed that the 11 December 2024 calibration by ACR Technical Services, Inc. meets this requirement. Engine flow rates are standardized from ambient conditions to a standard temperature and pressure of 60°F and one atmosphere per protocol requirements.

Archaea Energy (formerly Ingenco) Engines Flow meter:

The power plant facility was also equipped with a Veris Verabar fixed element coupled with a Rosemont Flow meter. The factory-recommended calibration is once every five years. The Rosemount Transmitter component of the flow meter (which, per the manufacturer, is the only element that needs to be calibrated) was originally factory calibrated December 2015 with the last calibration performed on 13 November 2024 and the previous calibration on 10 January 2024 - all within the 5% drift threshold. The calibration entities who performed the calibrations are listed in Table 2. The flow meter calibration records showed the activities performed with the “as found/as left” condition of the equipment documented. The position of the flow meter was adequate to ensure laminar flow. The meter calibration frequency met the calibration requirements of the manufacturer.

And finally, per the U.S. Landfill Protocol, v6, the protocol requires that all gas flow meters are: *"Field checked for calibration accuracy by a third-party technician with the percent drift documented ...at the end of – but no more than two months prior to or after – the end date of the reporting period."* SCS confirmed that the 13 November 2024 calibration by ACR Technical Services, Inc. meets this requirement.

Please refer Table 1 for further details on the engine flow meters.

Portable Gas Analyzers

The Protocol requires that all portable gas analyzers are calibrated annually. For the period January through December 2024, NRRA personnel used two Elkins Envision 1104 instruments which were factory calibrated on 20 May 2024 (Serial # 1905204B) and 22 November 2024 (Serial No. 1510206). All calibration results were found to be within 5% accuracy. The analyzers continued to conform to the manufacturer-recommended factory calibration intervals. In addition, the analyzers were field calibrated by New River Resource Authority personnel before each weekly monitoring event using a gas of known specifications (50% CH₄ and 50% balance gas). All calibration events were documented according to the protocol requirements.

The details of the above, are as follows:

Table 1: Project Monitoring Details

Monitoring Equipment	In Use	Inspection/ cleaning	Field Accuracy Check	3rd-Party Calibration
Rosemont Flowmeter to NRRA Flare ID 0462213 Veris Verabar Model V100-10-H- M* (Serial No. V13064-01.1)	All of 2024	2/14/2024, 5/15/2024 9/11/2024 12/11/2024	11/14/24	11/14/24
Rosemont Flowmeter to Ingenco Engines ID 2368726 3051SMV3M12A3R2A11A1AC22 E5 O-Plate Model 4253015406-4-6 Veris Verabar V100-10-H-M*	All of 2024	11/13/24	11/13/24	11/13/24
Elkins Earthworks, ENV1104 (portable meter) Serial No. 1510206	All of 2024	2/14/2024, 5/15/2024 9/11/2024 12/11/2024	Weekly when used	11/22/24
Elkins Earthworks, ENV1104 (portable meter) Serial No. 1905204B	Used as backup	2/14/2024, 5/15/2024 9/11/2024 12/11/2024	Weekly when used	5/20/2024

Table 2: Project Monitoring – as found / as left and maximum % drift and the calibration entities

Monitoring Equipment	As-Found/ As Left Results of Calibrations (@ Highest drift in span for flow meters)	% Drift (@ Highest drift in span for flow meters)	Conducted by
Rosemont Flowmeter to NRRA Flare ID# 0462213 Veris Verabar Model V100-10-H- M* (Serial No. V13064-01.1)	62.50/62.64	0.22%	ACR Technical Services Inc
Rosemont Flowmeter to Ingenco Engines ID# 2368726 3051SMV3M12A3R2A11A1AC22 E5 O-Plate Model 4253015406-4-6 Veris Verabar V100-10-H-M*	8.00/8.018	0.23%	ACR Technical Services Inc
Elkins Earthworks, ENV1104 (portable meter) Serial No. 1510206	15%/15% 40%/40% 50%/50%	0% 0% 0%	Elkins Earthworks
Elkins Earthworks, ENV1104 (portable meter) Serial No. 1905204B	15%/15% 40%/40% 50%/50%	0% 0% 0%	Elkins Earthworks

Temperature and hours of operation: The temperature of the flare is monitored via a thermocouple at the flare by the minute and recorded by the SCADA system. All flows with flare temperatures below 500 F are disregarded. Hours of operation are continuously monitored by kW/hour produced by the engine via a PLC and recorded on a SCADA system once every minute.

Raw data from the flow meters and gas analyzer were continuously collected every minute for the flare and engine are automatically stored onsite by a Yokogawa data acquisition device. Data was also recorded on a SCADA system as backup should the Yokogawa malfunction. Monthly reports are generated by exporting the data directly from the Yokogawa and converting the data into Excel files. The raw data is generally stored indefinitely by New River Resource Authority in two locations (in the NRRA office at the landfill and by SCS Engineers in Reston Virginia); however, at a minimum the data is stored for a period of 10 years after the information is generated or 7 years after the last verification.

A Project Monitoring Plan has been created for the Project and was updated for this reporting period. The contents of the monitoring plan were thoroughly reviewed and observed to meet the requirements of the U.S. Landfill Protocol. The monitoring plan records are kept for a minimum of ten years when the information is first generated or seven years after the last verification, per the project proponent's Monitoring Plan.

Based on this review, SCS confirmed the Project's QA/QC requirements were implemented in accordance with the Project monitoring plan.

Quantitative Review of Carbon Reductions and Removals

SCS devoted a portion of the verification assessment to the review of the manner and propriety by which New River Resource Authority quantified their net GHG reductions and removals. This assessment included a review of the baseline determination, review of project assumptions, raw data inputs and accuracy of calculations. The formulas and raw data inputs used to determine emission reduction calculations as described in the Project Monitoring Plan and the calculation spreadsheets were first reviewed for compliance with the U.S. Landfill Protocol. The main parameters of Equation 5.1 were verified as follows:

Equation Parameters

The following equations in section 5 of the U.S. Landfill Protocol v6.0 were relevant to this project:

Total Annual Methane Emissions Destroyed By The Project Landfill Gas Collection And Destruction System (CH₄ DestPR)

The amount of methane destroyed is calculated from the continuously metered landfill gas flow data to both the flare and to the Archaea engine gensets. For the verification period, data was electronically aggregated into one-minute intervals for both the flare and the Archaea Infrastructure plant. The main monitored parameters needed to calculate the amount of methane destroyed are:

$LFG_{i,t}$ = total quantity of landfill gas fed to the destruction devices and

$PR_{CH_4 i,t}$ = the average methane fraction of the landfill gas in time interval t as measured

The flare flow is first adjusted for low temperature by voiding the flow for any period when the flare temperature is below the threshold of 500 degrees F. and by voiding the flow (engines) for any period when there was no evidence of kW output.

Daily flow is then calculated by summing the flare and engine flows for each interval period to produce a daily total. The incremental methane destroyed flow is calculated based on weekly methane concentrations by the daily total of landfill gas with temperature and pressure taken into consideration. Total daily destroyed methane is carried forward into further calculations for the flare and engines to determine emission reductions for the project.

Adjustment For Landfill Gas Flow Metering Equipment For Temperature And Pressure

The flare flow meter is set for 59 degrees F and 1 atm and is corrected to 60 degrees F in internal flow calculations. For the Archaea (Ingenco) flow meter, temperature and pressure of the landfill gas is set at 60 degrees F and 1 atm and no additional calculations were necessary.

Default Methane Destruction Efficiency For Device (Dei)

The value applied was 0.96 for an open flare as prescribed by the Protocol. The Project Developer has taken an approach of applying a 500 degrees F temperature minimum to emission reduction calculations to ensure 96% destruction efficiency of the flare. For the Archaea (Ingenco) engine gensets, a 0.936 efficiency factor was applied as prescribed by the Protocol.

Factor For The Oxidation Of Methane By Soil Bacteria (OX)

The Project uses a synthetic liner cover system over only a portion of the landfill; therefore a 10% methane soil oxidation factor was applied to the baseline including the Project and Pre-Project scenarios.

Discount Factor To Account For Uncertainties Associated With The Project Monitoring Equipment (DF)

As per the methodology, DF equals to zero if using continuous methane monitor with no missing data and all calibration tests are within a 5% margin of error. It was verified that measurement readings are measured weekly using a calibrated portable gas analyzer. As per the methodology, DF equals to 10% if using a portable methane analyzer where methane content was measured once per week. Copies of the raw data used in the calculations, including flow data and methane content data, were compared with the data used in the final calculations and tested for transcription or mathematical errors.

Adjustment To Account for Pre-Project LFG Destruction Device (PREdiscount)

An adjustment to the project baseline was necessary due to the installation of a pre-project destruction device (an open utility flare). For the purposes of quantifying the deductions against the baseline for the operation of this non-qualifying destruction device, New River Resource Authority has used the maximum rated capacity of the utility flare, the maximum operation period (i.e., 24 hours/365 days), and the average annual methane concentration monitored during the first reporting year, 2008.

Total Annual Indirect Carbon Dioxide Emissions from The Consumption of Electricity From The Grid (ELCO2) and Total Annual Carbon Dioxide Emissions From The Destruction Of Fossil Fuel (FFCO2)

CO2 emissions result from consumption of electricity to power project equipment and activity data for this source was tracked by reviewing utility invoices from the power supplier. Direct CO2 emissions resulted from propane used to assist the ignition of the flare and from the use of diesel fuel used as part of the fuel mix for the engines in the power plant. This activity data is taken from purchase invoices (diesel) and from estimates for propane used. The emission factors for electricity, propane and diesel were verified and no material errors were found.

Project emissions consisting of indirect emissions from electricity and direct emissions from propane and diesel use are subtracted from the total amount of methane destroyed. The values are presented in the final calculation spreadsheets for the verification period.

A representative sample of raw data sources and calculations over the verification period were reviewed. SCS performed re-calculations of emission reductions for the entire verification period to assess whether they were free of material misstatement.

Missing Data Procedures

No missing data procedure (per Appendix “D” of the protocol) was applied to the data in this reporting period.

Zero Credit Periods

There were no zero credit periods for the Project applicable for this reporting period.

Variances or Deviations

For this reporting period, there were no variances or deviations.

Credit Stacking

SCS conducted an interview with New River Resource Authority management and verified that this project has not sought or received any other mitigation credits for the purpose of offsetting the environmental impacts of this landfill.

Verification Results

The verification of the New River Landfill Gas Methane Destruction Project focused on the accurate collection of data and quantification of emission reductions as implemented by New River Resource Authority in accordance with the U.S. Landfill Protocol. The verification of the New River Resource Landfill focused on the accurate collection of data and quantification of emission reductions as implemented by New River Resource Authority in accordance with the verification criteria.

A sample set of raw flow data (consisting of landfill gas flow and temperature) and methane concentration was randomly selected and reviewed to identify material misstatements due to transcription mistakes, mathematical errors or malfunction of instruments. The emission reduction calculations were recalculated by the verification team and found to there to be no material misstatement. Further, the Project activity was assessed by the verification team to be in conformance with the U.S. Landfill Protocol. An independent check of both the Baseline (BE) calculations and Project (PE) calculations were found to be <0.005% per the equation:

The percent error is defined as the following:

$$\%Error = abs\left(\frac{Stated\ reductions - Verified\ reductions}{Verified\ reductions}\right) \times 100$$

(Stated reductions – Verified reductions: (43,657.00-43,656.40) = 0.40)

% Error for this project =abs(0.40 /43,657) * 100 = < 0.001%

The accuracy level is defined as the following:

Accuracy = 100% – (0.002) % *Error* = 99.999 %

The project meets the quantitative materiality threshold of > 97 % accuracy for this project.

New River Resource Authority is the responsible party for the preparation and fair representation of the GHG Statement (i.e. GHG Assertion) in accordance with the criteria. The Verification Body (SCS) is responsible for expressing an opinion on the GHG statement based on the verification assessment.

Based upon the verification process and the evidence collected, SCS concludes that the GHG assertion is a fair representation of the Project’s emission reductions resulting from the destruction of methane at the landfill during the reporting 01 January 2024 to 31 December 2024 and can be considered:

- In conformance with the CAR U.S. Landfill Protocol, Version #6 (June, 2022)
- Without material discrepancy, and
- Verified to a reasonable level of assurance.

The following provides a summary of the verification results:

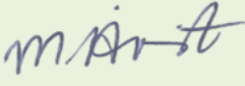
Emissions Verified	Baseline Emissions CO ₂ e (metric tons)	Project Emissions CO ₂ e (metric tons)	Emission Reductions CO ₂ e (metric tons)
Emissions Year 2024	44,244	587	43,657
Total Emissions Reductions	44,244	587	43,657

Note: final numbers are rounded for simplicity.

Throughout the verification process, SCS made several supplemental documentation requests in the form of Findings – NIRs, NCRs, and OBSs. These requests provided clarification regarding the project. The Findings from the verification of the Project are provided in Appendix B.

Recommendation

The Lead Verifier recommends that SCS Global Services issue a Positive verification opinion for the following:

Project Developer Name & Address	New River Resource Authority 7100 Cloyds Mountain Rd, Dublin, VA 24084 USA
Scope of Verification	Emission reductions arising from the capture and destruction of Landfill Gas Methane from New River Resource Solid Waste Landfill
Reporting Period	01 January 2024 to 31 December 2024
Total GHG Emission Reductions Verified	43,657 metric tonnes CO ₂ e
GHG Protocol(s) Used for Verification	■ CAR Offset Program Manual, Version 9.2 (April 2024) ■ CAR Verification Program Manual (February 2021) ■ U.S. Landfill Protocol, Version 6.0 (June 2022) ■ Errata and Clarifications to U.S. Landfill Protocol Version 6.0, April 2023. ■ ISO 14064-3: 2019, Greenhouse Gases – Part 3: Specification with guidance for the verification and validation of greenhouse gas statements
Lead Verifier's Approval	 Mark Lutz, February 6, 2026
Senior Internal Reviewer's Approval	 Michelle Hirst, February 6, 2026
Date of Verification	The Verification Statement is to be dated when the Senior Internal Reviewer accepts the recommendation to issue the statement.

Appendix A: SCS Certification Mark

Congratulations on receiving a positive verification for the Project. Your project is now eligible to use the SCS Kingfisher Certification Mark B for Carbon Offset Project Verification, as represented on the cover page of this verification report. The SCS Kingfisher Certification Mark increases the recognition of your achievements with your verification carbon offset project.

Please refer to the *SCS Kingfisher Certification Mark Labeling and Language Guide: Mark B* provided to you by the GHG Verification Program staff for more information about your Mark and usage. Should you have any additional questions regarding your Mark, use, messaging, or other marketing opportunities, please contact the GHG Verification Team or SCS Marketing Staff at NRmarcom@scsglobalservices.com.