VALIDATION AND VERIFICATION REPORT

Tradewater US – ODS - #7
Reporting Period: November 9, 2024 – November 12, 2024

ACR Project ACR1103
East Liverpool, Ohio

January 30, 2025

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1 Introduction

Tradewater, LLC. (Tradewater) contracted SES, Inc. (SES) to perform the validation and verification of the Tradewater US – ODS #7 project for the reporting period November 9, 2024, through November 12, 2024, with a crediting period of November 9, 2024, through November 12, 2024, under the ACR program. The Project ID is ACR1103.

1.1 Project Overview

The project involves greenhouse gas (GHG) emission reductions from the destruction of ozone depleting substances (ODS) that would have otherwise been released into the atmosphere. This reporting period consisted of one non-mixed ODS destruction event. The ODS material was stored in an International Standards Organization (ISO) tank and shipped for destruction to the Heritage Thermal Services (HTS) facility in East Liverpool, Ohio.

The destruction facility is a permitted U.S. Environmental Protection Agency (EPA) hazardous waste combustor (HWC). This reporting period consisted of a single destruction event that began on November 9, 2024, and ended on November 12, 2024. The project destroyed 32,280 pounds of non-mixed CFC-11. The CFC-11 came from a single source in Virginia.

1.2 Objectives

The objective of the validation is to review the Project Plan and evaluate its conformance with requirements in the ACR Standard and the ACR Methodology for the Quantification, Monitoring, Reporting and Verification of Greenhouse Gas Emissions Reductions and Removals from The Destruction of Ozone Depleting Substances and High-GWP Foam, herein referred to as the Methodology. To accomplish this objective, SES evaluated project planning information, monitoring and reporting procedures, and reported GHG emission reductions.

The objective of the verification is to verify the information in Tradewater's Monitoring Report is consistent with the GHG Project Plan and to verify Tradewater's assertion in the Monitoring Report that the project has generated 67,978 tons of GHG emission reductions during the period of November 9, 2024, through November 12, 2024. To accomplish these objectives, SES must be able to verify that the project meets all applicable criteria, and that the quantification of emission reductions is, in all material respects, in conformance with the ACR Standard, the specific requirements for ACR ODS Destruction projects, and confirm that all project calculations are correct.

1.3 Scope

The verification covers the period of November 9, 2024, through November 12, 2024. The GHGs addressed are refrigerants (CFC-11, with trace amounts of CFC-113) and carbon dioxide (CO_2). The geographic boundary is the HTS Destruction Facility in East Liverpool, Ohio. The organizational and GHG assessment boundaries to be considered are described in the applicable sources, sinks and reservoirs (SSRs):

- SSR 4: Transport to Destruction Facility (CO_2). Fossil fuel emissions from the vehicular transport of ODS from aggregation point to final destruction facility

- SSR 5: Recovered ODS Stockpile (ODS). Emissions of ODS from recovered ODS stockpiles and end-of-life (EOL) equipment (if not sent for destruction)

- SSR 6: Destruction (ODS). Emissions of ODS from incomplete destruction at destruction facility
- SSR 6: Destruction (CO_2). Emissions from the oxidation of carbon contained in destroyed ODS
- SSR 6: Destruction (CO_2). Fossil fuel emissions from the destruction of ODS at destruction facility
- SSR 6: Destruction (CO_2). Indirect emissions from the use of grid-delivered electricity

Other scope elements evaluated during the validation and verification activities included:

- Physical infrastructure, activities, technologies, and processes of the GHG project
- Baseline scenarios
- Methods and calculations used to generate estimates of emissions and emission reductions/removal enhancements
- Original underlying data and documentation as relevant and required to evaluate the GHG assertion
- Process information, source identification/counts, and operational details
- Data management systems
- Roles and responsibilities of project participants or client staff
- Quality Assurance/Quality Control (QA/QC) procedures and results
- Processes for and results from uncertainty assessments
- Project-specific conformance to ACR eligibility criteria

1.4 Validation and Verification Criteria

The criteria used for this validation and verification are specified in:

- The ACR Standard, Version 8.0, July, 2023; and
- The ACR Methodology for the Quantification, Monitoring, Reporting and Verification of Greenhouse Gas Emissions Reductions and Removals from The Destruction of Ozone Depleting Substances and High-GWP Foam, Version 2.0, February 2023 (Methodology), and the associated Errata and Clarification from November 14, 2024.

Validation and verification procedures were based on:

- The ACR Validation and Verification Standard, Version 1.1, May 2018, and
- ISO 14064-3: Specification with Guidance for the Validation and Verification of Greenhouse Gas Assertions, 2019.

The GHG Project Plan, the final version of which is dated January 28, 2025, was compared to the validation criteria. The verification criteria were applied to the project's final GHG assertions as shown on the final Project Monitoring Report, dated January 28, 2025.

1.5 Level of Assurance and Materiality

ACR requires that all verifications be completed based on a reasonable level of assurance. Level of assurance is not applicable to the validation activities.

The verification was conducted to ACR's required materiality threshold of +/-5% of the GHG project's emissions reductions or removal enhancements.

2 Validation and Verification Process

SES followed the validation and verification procedures specified by SES's Policies and Procedures Manual and the ACR Standard when it reviewed and analyzed the Tradewater US – ODS #7 project information. The following subsections describe the validation and verification process in more detail.

2.1 Pre-Engagement Activities

The following subsections describe the pre-engagement process for the Tradewater US – ODS #7 project verification.

2.1.1 Conflict of Interest Determination

Prior to submitting a bid to Tradewater to conduct validation and verification of the Tradewater US – ODS #7 project, SES conducted an internal conflict of interest (COI) review. This review found that the potential for COI was low, so SES proceeded to submit a bid for the project. After Tradewater accepted the bid, SES prepared an ACR COI Attestation form for this project and the project proponent and submitted this form to ACR on November 21, 2024. ACR notified SES that this COI evaluation was approved on December 2, 2024.

2.1.2 Rotation of Validation and Verification Bodies (VVB)

This is the third ACR project that SES has provided validation and verification services to Tradewater. The prior projects were validated and verified in March and July 2024. ACR allows a Project Proponent to utilize the same VVB for a maximum of 5 years or five projects, whichever comes first.

2.1.3 Validation and Verification Team

The following individuals comprised the SES validation and verification team for this project:

- Validation/Verification Team Leader (Lead Validator/Verifier): Rob Dobson
- Independent Reviewer (Senior Internal Reviewer): Patrick Splichal
- Validation/Verification Team Members: Rita Leavitt, Erin Manville, Matt Janorschke

2.1.4 Kick-Off Meeting

An initial kick-off meeting was held by conference call on December 3, 2024. Mr. Dobson and Ms. Manville from SES and Mr. Andre Buiza and Mr. Daniel Ulloa from Tradewater were participants in the kick-off meeting call. During this call, SES requested the information and data for the Tradewater US – ODS #7 project to enable SES to begin initial validation and verification services. SES also discussed the scope of the verification services, the SES team, verification schedule, and what personnel from HTS would need to be present for the site visit. After the call, Tradewater uploaded the first set of verification documents to a third-party file sharing service. SES reviewed these documents to plan for the site visit and data checks.

2.1.5 Validation and Verification Planning

SES prepared a Validation/Verification Plan for the Tradewater US – ODS #7 project. This Plan was communicated to Tradewater. The Validation/Verification Plan identified the Verification

Team Members and described the objectives, scope, and criteria for the project. The Validation/Verification Plan also provided an overview of project activities and a proposed schedule for these activities, including the proposed dates for the planning meeting, the site visit, and completion of the validation/verification services. SES completed the planning meeting, site visit, interviews with project staff and submittal of the first draft of the Verification Report on the dates proposed in the Validation/Verification Plan.

Tradewater provided sufficient information for SES to conduct a strategic analysis to assess the nature, scale, and complexity of the validation/verification services required for the Tradewater US – ODS #7 project, and to conduct a qualitative risk assessment. After conducting the strategic analysis and assessment of risk, SES developed an Evidence-Gathering Plan. The Evidence-Gathering Plan described the amount and type of evidence needed for the validation and verification; provided a ranking of the highest-risk data sources; discussed the risks of errors, omissions or misstatements associated with evidence, and described the methodology for selecting a random sample of data for review.

A summary of the information analyzed in the data checks and document reviews during the site visit and desk audit is recorded on the SES ODS Data Check Worksheet (Worksheet) for the project. SES revised the Evidence-Gathering Plan and Worksheet as tasks were completed and new information became available, and then updated and finalized the Evidence-Gathering Plan (including the Worksheet) at the conclusion of verification services. SES will retain, in paper or electronic format, the Verification Plan and Evidence-Gathering Plan and all other material received, reviewed, and generated as part of the verification services for at least two years following the end of the crediting period.

2.2 Site Visit

A site visit was conducted at HTS on December 12, 2024, for the Tradewater US – ODS #7 project. Mr. Dobson from SES conducted the site visit. Mr. Buiza and Mr. Ulloa from Tradewater attended the site visit using a video conferencing service. During the site visit, SES assessed GHG project boundaries, site operations, data collection processes, and information management systems, as well as conducted interviews with key project personnel. These personnel included:

- John “J.T.” Higgins – Product Management Coordinator
- Steve Lorah – Thermal Technology Specialist
- Carrie Beringer, Environmental Manager

This plant tour included direct observations of (1) the scales used to weigh the containers and security at the main entrance, (2) Sampling Bay where ODS samples are sometimes collected (3) East Bay #1 (E-Bay), which is the direct burn bay for refrigerants and where the ODS samples are sometimes collected, (4) the feed lines to the kiln, and (5) the “control room” used to monitor all destruction events and collect destruction data.

2.3 List of Findings and Corrective Actions

During the assessment of GHG data and information, SES identified issues that required corrective action from Tradewater. SES assessed whether these issues could affect the determination of nonconformance or a material misstatement. These issues are summarized in the List of Findings associated with this project (See Attachment A). Tradewater provided

clarification as appropriate and made all possible improvements and corrections to the Project Plan and Monitoring Report in response to these findings.

2.4 Assessment of Material Misstatement

SES made an independent calculation of baseline emissions, project emissions, and net emission reductions (ER) to determine if Tradewater's reported ERs are free of material misstatement. SES also assessed whether the procedures used to provide data were in conformance with the ACR Standard and the ACR ODS Methodology. SES did not identify any discrepancies, errors or omissions in the calculations during the verification. SES's ER calculations were identical to Tradewater's. This resulted in an error of 0.00%, meaning the ER assertion contains no material misstatement.

2.5 Issuance of Report and Opinion

After a final discussion had occurred with Tradewater, and the corrective action requests had been addressed, and SES determined there was no material misstatement, SES prepared and issued this Validation and Verification Report and Validation and Verification Opinion for the Tradewater US – ODS - #7 project. These two documents were reviewed following procedures from SES's Quality Management Plan and ACR Standard. Mr. Splichal, the Independent Reviewer, reviewed these documents and concurred with the Verification Report and Verification Statement. Mr. Splichal maintained independence from the verification services provided for the project. After Mr. Splichal approved the Validation and Verification Report and Validation and Verification Opinion, SES provided Tradewater with the Validation and Verification Report and Validation and Verification Opinion. After a review by Tradewater, SES submitted the Validation and Verification Report and Validation and Verification Opinion to ACR.

3 Validation and Verification Findings

The following subsections contain details about SES's conclusions regarding the Tradewater US – ODS #7 project's conformity to the verification criteria identified in Section 1.4.

3.1 Project Boundary and Activity

The reporting period of this project included one destruction event in which eligible ODS species (CFC-11, CFC-113) were destroyed at a single qualifying destruction facility. The project reporting period occurred from November 9, 2024 – November 12, 2024, well within the Methodology requirement of 12 consecutive months. HTS issued a Certificate of Destruction (COD) for the destruction event. The ODS was destroyed at the HTS facility in East Liverpool, Ohio.

The Project's geographic boundary is the HTS destruction facility in East Liverpool, Ohio. The Project's temporal boundary is the reporting period from November 9, 2024, to November 12, 2024. This is one reporting period that is less than 12 months in length, which complies with the temporal boundary stated in the Methodology.

The Project boundary includes fossil fuel emissions from the vehicular transport of ODS from the aggregation point to the final destruction facility (SSR 4), emissions of ODS from recovered ODS stockpiles (SSR 5), and destruction emissions (SSR 6). SSR 5 is applicable to both baseline and project emissions, while the other SSRs are only applicable to project emissions. SES assessed the SSR determination included in the GHG Project Plan and found the justification

accurate and in accordance with the Methodology. Overall, Tradewater provided an accurate description of the Project boundary and a comprehensive justification for the project SSRs.

3.2 Eligibility

Chapter 3 of the ACR Standard and Chapters 2, 3, and 4 of the Methodology identify criteria that must be met for a project to be eligible for credits. SES reviewed all these criteria for the Tradewater US – ODS - #7 project. Based on this review, SES concludes with a reasonable level of assurance that the project meets all of them.

3.2.1 ACR Eligibility

SES confirmed the following ACR eligibility criteria listed in the ACR Standard, Version 8.0 by reviewing the project proponent's Project Plan, Monitoring Report, and calculations as well as other supporting documentation described throughout this report.

- **Start Date:** The project start date is November 9, 2024. This was confirmed by SES through a review of the destruction data provided by the HTS destruction facility.
- **Minimum Project Term:** Projects with no risk of reversal subsequent to crediting have no required minimum project term.
- **Crediting Period:** The crediting period is equal to the reporting period, as specified by the Methodology (November 9, 2024 – November 12, 2024).
- **Real:** ODS destruction activities are performed in accordance with an approved ACR methodology to produce verifiable evidence of emissions mitigation. The GHG reductions occurred after the ODS was destroyed.
- **Emission or Removal Origin:** Tradewater retains ownership of emission reductions via contractual agreements with upstream and downstream customers.
- **Offset Title:** Tradewater of Chicago, Illinois, is the Project Proponent. SES reviewed the Transfer of Ownership and Custody Documentation, and Bill of Lading (BOL) for the shipment of ODS material. These documents demonstrated that Tradewater purchased ODS material from a single supplier who transferred "ownership, custody and all rights" to the ODS to Tradewater. The project proponent then destroys the refrigerant at an eligible facility. SES also reviewed the Environmental Services Agreement (ESA) with HTS for the mixing, sampling, and destruction of the ODS material. The ESA with HTS and Transfer of Ownership and Custody Documentation with the ODS supplier confirmed that Tradewater retained all environmental attributes from the destruction of the ODS material. SES verified that Tradewater retains all legal claims to the environmental attributes and GHG benefits of the offset project.
- **Leakage:** Leakage does not apply under the Methodology.

3.2.2 Methodology Eligibility

SES reviewed the Project against the ACR Methodology eligibility requirements and confirmed the following:

- The Project occurs in the United States. The HTS destruction facility is located at 1250 St. George St., East Liverpool, Ohio 43920. The facility at HTS is an eligible destruction facility.
- The Project occurs at a destruction facility that is a Resource Conservation and Recovery Act (RCRA)-permitted HWC with an ODS destruction efficiency of at least 99.99%.

- The refrigerant meets the definition of eligible refrigerant sources, which must originate from equipment, systems, or other supplies in the United States.
- This project included one destruction event in which eligible ODS species (CFC-11, CFC-113) were destroyed at a single destruction facility. HTS issued a Certificate of Destruction for the destruction event.

3.2.3 Eligible ODS Sources

Tradewater supplied documentation including a Refrigerant Purchase Agreement (RPA), and attestations that allowed SES to verify that all refrigerant ODS was sourced in the U.S. This documentation also demonstrated that the source of the eligible ODS material met the requirements for Chapter 2.2 of the Methodology.

3.2.4 Additionality

SES confirmed that Tradewater met the additionality requirement because it destroyed ODS that originated from U.S. sources and utilized a RCRA-permitted HWC for ODS destruction. SES also found no mandates for the destruction of any of the eligible refrigerants in the U.S. according to 40 Code of Federal Regulations (CFR) Part 82 which allows for the continued use of the refrigerants in the U.S.

The Project meets the requirements for the demonstration of additionality specified by the ACR Standard by exceeding the approved performance standard defined in the Methodology and demonstrating surplus to regulations.

3.2.5 Regulatory Compliance

SES reviewed the information provided by Tradewater and HTS related to regulatory compliance. SES also reviewed EPA's Enforcement and Compliance History Online (ECHO) database (http://echo.epa.gov) for Tradewater and HTS and the Ohio EPA's online public records database for HTS. No violations were shown in EPA ECHO or in the Ohio EPA's online public records database for HTS or Tradewater for this reporting period. In addition, SES interviewed Ms. Beringer during the site visit. Ms. Beringer asserted that she was not aware of any environmental non-compliance issues from Federal, State, or Local agencies during this reporting period.

SES conducted a review of the regulatory compliance of the HTS destruction facility, examined operating parameters and reviewed performance during the destruction events against the permit performance requirements. For HTS, SES verified that its RCRA, Title V, and National Pollutant Discharge Elimination System (NPDES) permits were current. SES reviewed the following documentation from HTS:

- RCRA Hazardous Waste Permit, 02-15-0589, renewed on January 17, 2019. It became effective on January 17, 2019, and is effective for ten years. SES also reviewed a list of compressed gases from the RCRA permit that HTS is allowed to destroy. All eligible refrigerants from the ACR Methodology and all other trace amounts of refrigerants identified in the analysis from this project were included on this list
- Title V Permit, Permit #P0134491, issued 10/29/24, effective 11/19/24, expires 11/19/29. The previous permit (P0128768, issued December 11, 2020, effective December 11, 2020, expires January 16, 2024) was in effect while the permit renewal was pending

pursuant to OAC Rule 3745-77-08(E), because HTS submitted a renewal application on July 17, 2023.

- National Pollutant Discharge Elimination System Permit, OH0107298, effective November 1, 2021, expires October 31, 2026.

SES questioned Ms. Carrie Beringer, Environmental Manager, regarding compliance status during the reporting period. SES reviewed the Notice of Violation (NOV) matrix produced by HTS, which covered the period between August 27, 2021, and June 10, 2024. In addition, SES reviewed U.S. EPA's ECHO database on December 20, 2024, for HTS; Ohio EPA's eDocuments website on December 20, 2024; and various correspondences between HTS and Ohio EPA. U.S. EPA's ECHO database showed "No Violations" for RCRA or the Clean Water Act (CWA) statutes. A RCRA Compliance Evaluation Inspection (CEI) was conducted at HTS by Ohio EPA on December 14, 2023, and December 27, 2023. The Ohio EPA sent Notice of Compliance letters to HTS stating no violations were found during the CEI. The EPA ECHO report confirmed no violations were found.

On June 10, 2024, Ohio EPA sent a NOV letter regarding total hydrocarbon (THC) emission exceedances on five days during the first quarter of 2024. The exceedances were attributed to "operator error." The Ohio EPA stated that HTS had performed the necessary corrective action. The occurrences happened prior to this reporting period. The ECHO database also indicated a Clean Air Act violation on September 11, 2024. Ms. Beringer indicated this compliance issue was also related to THC emission exceedances, and the violations were corrected before this reporting period.

SES also reviewed the Occupational Safety and Health Administration (OSHA) Integrated Management Information Systems (IMIS) database on January 7, 2025. No issues of non-compliance were found during this reporting period.

SES also verified that the facility had performed the required Combustion Performance Test (CPT) demonstrating a destruction and removal efficiency (DRE) in excess of 99.99% with a material less combustible than the destructed ODS. The CPT Report from May 2020 showed a DRE of 99.9999% for monochlorobenzene, meeting the COP requirements. Confirmatory performance testing conducted in June 2023 showed a DRE of >99.99%, meeting the Methodology requirements. SES also verified that monitoring required by the Title V permit and the Methodology was conducted for the entire period of both destruction events and was within limits as described in Section 3.2.4 of this verification report.

Based on this review, SES concludes that the project complies with all environmental laws and regulations directly related to project activities during the reporting period.

3.2.6 Permanence

The emissions reductions from the destruction of ODS can be deemed permanent because the material is permanently destroyed.

3.2.7 Independently Validated and Verified

Tradewater contracted SES to provide independent and objective third-party validation and verification services to the Project. SES is an ANSI National Accreditation Board (ANAB)-accredited and ACR-approved VVB.

3.2.8 Environmental and Social Impacts

The project plan includes a comprehensive summary of the project activity's net positive environmental impacts. Destroying ODS avoids the future leakage of the ODS into the atmosphere. There are no negative social or environmental impacts for this project. Tradewater holds all required environmental permits to operate its facility and HTS holds all required environmental permits to operate its destruction facility. The Project Plan also identifies contributions as aligned with relevant sustainable development goals (SDGs) including Good Health and Well Being (SDG 3.9); Industry, Innovation, and Infrastructure (SDG 9.4); Responsible Consumption and Production (SDG 12.4); Climate Action (SDG 13.2), Life Below Water (SDG 14.1), and Life on Land (SDG 15.1).

Tradewater provided the Environmental and Social Impact Assessment form (E&S Impact Report) per the requirements of Chapter 8 of the ACR Standard. SES applied verification criteria to the project's environmental and social impact assertions as shown in the final version of the E&S Impact Report, dated November 27, 2024. SES confirmed that this project is not a community-based project and that there are no negative environmental or social impacts resulting from this project.

3.2.9 Baseline Scenario

The baseline determines the emissions that would occur in the absence of the project. The Methodology establishes the baseline scenario as an emissions rate of 100% of the chlorofluorocarbons (CFC) and hydrochlorofluorocarbons (HCFC) refrigerants. These refrigerants produced prior to the phasing out of production are either still in use for outdated or retrofitted equipment, or stored, posing a risk of leakage into the atmosphere. The project activity is the destruction of eligible CFC and HCFC refrigerants. By destroying these eligible CFCs and HCFCs, the project prevents potential emissions from these ODS materials, aligning with the Methodology's aim to reduce GHG emissions. SES confirmed that the Project Plan appropriately identifies the baseline scenario.

3.2.10 Approved Variance or Deviations

The Project did not obtain deviations from ACR during the validation/verification process.

3.3 Monitoring and Operations

The monitoring plan described within the GHG Project Plan includes all relevant data and parameters required to obtain a reliable result of generated emission reductions and meets the requirements of the Methodology. The GHG Project Plan includes a complete description of the frequency, responsibility, and procedures for recording, storing, monitoring, and measuring all project data. All requirements in Chapter 6.1 of the Methodology are addressed in the GHG Project Plan.

The sections below discuss relevant aspects of the GHG Project Plan as they relate to the requirements for data collection and parameters to be monitored in Chapter 6 of the Methodology.

3.3.1 Point of Origin Documentation

SES verified, through records supplied by Tradewater, that the ODS material destroyed in the project had originated from a single source in the U.S. The source was a DuPont USA Specialty

Products LLC (DuPont) facility in Richmond, Virginia. The ODS was refrigerant CFC-11 that was stored in an ISO container at the DuPont facility. SES reviewed an RPA and a Point of Origin (POO) Rider from DuPont that transferred all rights to the refrigerant to Tradewater.

Based on this review, SES concludes that the ODS destroyed was eligible and that documentation of its POO was adequate.

3.3.2 Chain of Custody

There was only one shipment of ODS material involved in this project. The ODS material was stored in an ISO container at the DuPont facility before being shipped directly to HTS for destruction. SES reviewed a BOL and a Pickup/Delivery Receipt from Boasso Global, Inc. These documents showed that the ODS material was shipped directly from the DuPont Facility in Richmond, Virginia to HTS in East Liverpool, Ohio.

SES concluded from these documents that Tradewater documented the custody and ownership of the ODS as required by the Methodology.

3.3.3 Concentrated ODS Composition and Quantity Analysis

Eligible non-mixed CFC-11 was shipped directly to the HTS facility in East Liverpool, Ohio from the POO as described above. Upon arrival at HTS, the container was weighed separately from the transportation vehicle, and weight tickets were retained to establish pre-destruction and post-destruction weights. A single Sartorius scale (Serial Number 07026483-Scale Reader) at the HTS front gate was used for the weigh-ins.

SES reviewed the weight tickets for the destruction event and confirmed that the same scale was used for beginning and ending weights, that the weights were recorded no more than 48 hours prior to the beginning of the event nor 48 hours after the ending of the event, and that two beginning and two ending weight tickets were generated at least three minutes apart. The starting weight was recorded at 2:36 p.m. and 2:42 p.m. on November 8, 2024, as 48,180 pounds. The ending weight for this destruction event was recorded as 15,900 pounds at 8:52 a.m. and 8:59 a.m. on November 12, 2024.

SES also verified that the difference in full and empty weight as measured by the weight tickets matched the value on the COD. SES reviewed the calibration records for the scales from October 12, 2024, and found the scales met calibration requirements according to the bi-monthly calibration schedule in HTS's RCRA permit, and the scales' accuracy was within 5% of reading for the two-month period that includes the reporting period.

One ODS sample was drawn from the ISO container. Mr. John Higgins, an HTS-trained ODS sampling technician, took the sample. By reviewing HTS's "ODS Sampling Certificate" and associated chain-of-custody documentation, SES verified that all sampling requirements of the Methodology were met and appropriate records were retained. The sample was shipped off-site to an Air-conditioning, Heating, and Refrigeration Institute (AHRI)-certified laboratory, National Refrigerants, Inc. (NRI), for analysis by gas chromatography. Table 1 summarizes the analytical results.

Table 1. Summary of Analytical Results

Certificate ID	Sample #	Eligible ODS%	Moisture (parts per million)	Moisture Saturation (ppm)	% High Boiling Residue
EURU 094173-7	L807688	CFC-11: 99.54 CFC-113: 0.16	9	90	0.012

All parameters of the AHRI-700 analysis exceeded the requirements of the Methodology and demonstrated the type of refrigerant in the ISO tank for the destruction event.

3.3.4 Destruction Facility Requirements

The HTS destruction facility in East Liverpool, Ohio, is a RCRA-permitted HWC. SES verified both the regulatory compliance of the destruction facility and its conformity with the requirements of the Methodology. SES reviewed HTS's destruction equipment monitoring and control system, its current Title V permit, RCRA permit, and NPDES permit in detail; compared performance parameters recorded during the destruction event (CEMS data) with permit limits; and confirmed that required monitoring equipment was used and that calibration of monitoring equipment was current and within COP allowances. SES reviewed HTS's Startup, Shutdown and Malfunction Plan (SSMP).

HTS provided an Excel file download of the real-time monitoring parameters data for the reporting period. The CEMS parameters are monitored continuously and recorded every minute, and data are downloaded to Excel. The following information was tracked during destruction:

- Date and time
- ODS feed rate (lbs/hr) from aqueous lance port to the kiln
- Kiln temperature (°F)
- Kiln pressure (inches of H_2O)
- Carbon monoxide (CO) concentration (ppm)
- Total hydrocarbons (THC) concentration in ppm (HTS is regulated on THC, not CO, in its Title V permit)
- Scrubber flow (gallons per minute)
- Final scrubber pH

SES confirmed that the kiln unit operated within the parameters recorded during DRE testing and that HTS was following its SSMP during the times of ODS destruction.

3.3.5 Certificate of Destruction

SES confirmed that the COD contained Methodology required parameters.

- Offset Project Operator or Authorized Project Designee
- Destruction facility
- COD ID number
- Serial, tracking, or ID number of all containers for which ODS destruction occurred
- Weight and type of material destroyed from each container
- Destruction Start Date
- Destruction End Date

3.3.6 Data Management Systems

SES interviewed key personnel from Tradewater and the HTS destruction facility who were responsible for the project to gain an understanding of the controls put in place to account for refrigerant recovered, aggregated, and destroyed. SES reviewed Tradewater's processes for data collection and management and determined that they were sufficient to meet all ACR and Methodology requirements.

3.3.7 Emissions Reductions

SES separately calculated project emission reductions from information on the weight tickets, independent laboratory analysis reports, and the CODs. SES's calculations assessment included confirming the weight total as defined by the weight tickets. SES verified that the constants, default factors, and emission factors were correctly applied in Tradewater's assertion. SES verified that the raw data inputs were correct, and the formulas were applied correctly. Table 2 shows a summary of SES's and Tradewater's ER calculations and where/if any discrepancies occurred.

Table 2. Comparison of SES and Tradewater ER Calculations

Destruction Event	SES Baseline Emissions CO_2e (metric tons)	Tradewater Baseline Emissions CO_2e (metric tons)	SES Project Emissions CO_2e (metric tons)	Tradewater Project Emissions CO_2e (metric tons)	SES Emission Reductions CO_2e (metric tons)	Tradewater Emission Reductions CO_2e (metric tons)
EURU 094173-7	68,088.70	68,088.70	109.81	109.81	67,978.89	67,978.89
Total	68,088.70	68,088.70	109.81	109.81	67,978.89	67,978.89

SES confirmed that Tradewater calculated ER totals in conformance with the Methodology. SES performed a final calculation to determine if a material misstatement was present using the equation in Chapter 9.B of the ACR Standard. This equation is shown below:

$$\% \text{ Error} = (\text{Project Emission Reduction Assertion} - \text{Verified Emission Reduction Recalculation}) / (\text{Verified Emission Reduction Recalculation}) * 100$$

SES did not identify any discrepancies, errors or omissions in the calculations during the verification. SES's ER calculations were identical to Tradewater's.

$$\% \text{ Error} = (0/67{,}978) * 100\% = 0.00\%$$

Because the % Error is much less than the 5% defined by ACR, SES concludes with reasonable assurance that the ER assertion contains no material misstatement.

4 Validation Conclusions

SES confirms that the GHG Project Plan for Tradewater US – ODS #7 Project conforms to the ACR Standard Version 8.0, and the Methodology for the Quantification, Monitoring, Reporting and Verification of Greenhouse Gas Emissions Reductions and Removals from the Destruction of Ozone Depleting Substances and High-GWP, Version 2.0 (February 2023). No qualifications or limitations exist with respect to the validation opinion reached by the validation/verification team.

5 Verification Conclusions

Based on the verification activities described above, SES concludes, with a reasonable level of assurance, that Tradewater's assertions of ER generated from ODS destruction are consistent with the verification criteria and free of material misstatements. The verified ER total is 67,978 metric tons CO_2e for the period of November 9, 2024 – November 12, 2024. Table 3 summarizes the ER calculations for this reporting period, rounded to the nearest whole number.

Table 3. Emission Reductions Verified for November 9, 2024 – November 12, 2024

Emissions Verified	CO_2e (metric tons)
Baseline Emissions	68,088
Project Emissions	109
Emission Reductions	67,978

6 Signatures

Lead Validator/Verifier Signature:

Date: January 30, 2025

Independent Reviewer Signature:

Date: January 30, 2025

ATTACHMENT A

LIST OF FINDINGS

List of Findings
Tradewater US-ODS-#7, ACR1103
VVB: SES, Inc.
Reporting Period: Nov. 9 - Nov. 12, 2024

Type of Issue	Finding	Citation (Program Standard or Protocol/ Methodology Section)	Category (Misstatement/ Non-Conformance)	Corrective Action
Clarification Request	The Refrigerant Purchase Agreement (RPA) and Point of Origin Rider from DuPont states that the CFC-11 was already in the ISO container that was used for destruction, and that this ISO was shipped directly to Heritage Thermal Services without going to the Tradewater facility in Illinois first. However, the calculation sheet includes collections tabs for both HP and LP material, as well as a tab for vapor heels. Please clarify if any additional material was added to the ISO before destruction.	ODS Methodology Section 6.1 II	Potential non-conformance	Tradewater clarified that no material was included in the project other than the refrigerant CFC-11 described in the RPA. Tradewater provided an updated spreadsheet with the unnecessary tabs removed. Finding closed.
Misstatement	The project Reporting Period is incorrect in Section B3 of Greenhouse Gas Project Plan (GHGPP).	ACR Standard 6.B	Potential non-material misstatement	Tradwater provided an updated GHGPP dated January 9, 2025. Finding closed.
Non-conformance	The Table on Page 8 of GHGPP that lists the Appendices to the GHGPP was not completed	ACR Standard 6.B	Potential non-conformance	Tradwater provided an updated GHGPP dated January 9, 2025. Finding closed.
Non-conformance	The Project Monitoring Report submitted to SES (dated December 2, 2024) was not signed.	ACR Standard 6.E	Potential non-conformance	Tradwater provided an updated Monitoring Report dated January 9, 2025. Finding closed.