Tradewater US – ODS - #5

September 3, 2024

Tradewater, LLC

Table of Contents

A. PROJECT OVERVIEW

A1. PROJECT TITLE

Tradewater US – ODS - #5 (hereinafter referred to as "Project")

A2. PROJECT TYPE

Ozone Depleting Substances

A3. NON-TECHNICAL EXECUTIVE SUMMARY OF PROJECT

The project activity is the destruction of eligible ODS refrigerant, mainly R-22, R-115 and R-11 solvent, for which ownership was transferred to Tradewater for the purpose of destruction. The ODS was acquired from a variety of sources and included the following 40 states: AL, AR, AZ, CA, CO, CT, DE, FL, GA, IA, IL, IN, KS, KY, LA, MA, MD, MI, MN, MO, MS, NC, ND, NE, NH, NJ, NM, NV, NY, OH, OK, PA, SC, TN, TX, VA, WA, WI, WV, and WY.

All ODS refrigerant in this project was sourced either through recovery from units such as decommissioned building chillers, from disposable cylinders or drums containing virgin material, or from stockpiles of used or virgin material.

In the case of the recoveries, the material was previously recovered by another party or by eligible Tradewater personnel. Under business-as-usual, the refrigerant would either remain in storage until use (in the case of stockpiles) or used in chiller systems still utilizing older refrigerant. In either case, the ODS will eventually vent, either through leakage resulting from corrosion of the storage container or through inefficiencies, break- downs, or mishandling of equipment. The refrigerants included in this project were no longer needed for use, and their risk of venting is thereby mitigated by destruction at A-Gas, an eligible destruction facility.

The project activity consisted of two destruction events where 19,384 lbs of ODS refrigerant was destroyed. The project results in 30,485 $MTCO_2e$ of emissions reductions.

A4. PROJECT ACTION

Description of Prior Physical Conditions

In the business-as-usual scenario, ODS refrigerants are recovered from old equipment and sold or exchanged for continued use by owners of this antiquated equipment or left for storage until a use can be determined. Under either scenario, ODS refrigerant will ultimately leak into the atmosphere – either because the containers in which they are held degrade or slowly leak, or the equipment that contains the refrigerant suffer from accidental release during handling and transfer.

Description of how the Project will Achieve GHG Reductions

This Project achieves emissions reductions through the destruction of ODS refrigerant instead of allowing the

refrigerant to be redeployed into equipment or systems or held in containers at risk of eventual leakage or release. This Project measures the amount of assumed emissions if the ODS were vented under business-as-usual scenario against the emissions prevented by the destruction of the same material. Destruction yields significantly lower net emissions than the business-as-usual scenario.

Description of Project Technologies, Products, Services, and Expected Level of Activity

After the ODS refrigerant is recovered from equipment or aggregated from various storage situations, they are consolidated into half-ton cylinders at the Tradewater facility. From there, the cylinders are consolidated into a single ISO tank, which is sent to a destruction facility for destruction. The Project involved the destruction of two ISO tanks, one containing a mix of R-22 and R-115, and a smaller batch of R-11 solvent.

Tradewater anticipates future ODS refrigerant projects for as long as the recovery, reclamation, and eventual leakage of ODS refrigerant remains business as usual.

A5. PROOF OF PROJECT ELIGIBILITY

The project is eligible under "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 Foam, Version 2.0." Additional eligibility requirements as noted in the ACR Standard, Version 8.0 are included below.

Table 1: Applicability Requirements from the Methodology sections 2.2.1 and 3.

Criterion	Requirement	Proof of Project Eligibility
Location	Project is located in the United States, Canada, or their territories.	Destruction occurred at A-Gas, located in Bowling Green, OH, United States.
ODS Material	Only the destruction of eligible ODS refrigerants CFC-11, CFC-12, CFC-13, CFC-113, CFC-114, CFC-115, HCFC-123 and HCFC-22 are eligible under this Methodology.	The only ODS included for crediting are eligible refrigerants.
Stockpile Limitation	Any refrigerants obtained from a government stockpile or inventory are eligible only if they are not required to be destroyed or converted.	Refrigerants originating from a government stockpile are not required to be destroyed.
Start Date	Project start date is defined as the date on which the earliest destruction activity of a project commences, documented on a Certificate of Destruction.	The project start date and destruction commencement date are the same date as documented in Appendix D, the Certificates of Destruction.
Reporting Periods	Reporting period must not exceed 12 consecutive months. Project reporting period begins on the project start date.	Project reporting period begins on the project start date and does not exceed 12 months. This reporting period is provided in the included Monitoring Report.

Crediting Periods	Project crediting period is the same as the reporting period.	The project crediting period is the same as the reporting period as indicated on the Monitoring Report.

Table 2: Applicability Requirements from the ACR Standard version 8.0, Chapter 3 (not already covered in the Methodology)

Criterion	Requirement	Proof of Project Eligibility
Minimum Project Term	The duration of the Minimum Project Term for specific project types is defined in the relevant ACR sector requirements and/or methodology. Project types with no risk of reversal after crediting have no required Minimum Project Term.	There is no risk of reversal for this project, so the minimum project term is not applicable.
Real	GHG reduction and removals shall result from an emission mitigation activity that has been conducted in accordance with an approved ACR methodology and is verifiable. Credits will not be issued on an ex-ante basis.	The GHG reductions occurred after the ODS was destroyed, and prior to the verification process and credit issuance.
Emission or Removal Origin	For projects reducing or removing direct emissions, the following requirement applies: The Project Proponent shall own, have control over, or document that effective control exists over the GHG sources and/or sinks from which the emissions reductions or removals originate.	Tradewater LLC is the project proponent and owns the ODS obtained for this project.
Offset Title	Project Proponent shall provide documentation and attestation of undisputed title to all offsets prior to registration, including chain of custody documentation if offsets have ever been sold in the past. Title to offsets shall be clear, unique, and uncontested.	Tradewater, LLC has provided documentation of undisputed title to all offsets. Title to offsets is clear, unique, and uncontested. No offsets from the Project have been sold in the past.
Additional	Every project shall use either an ACR-approved performance standard and pass a regulatory surplus test, as detailed in the applicable methodology, or pass a three-pronged test of additionality in which the project must: 1. Exceed regulatory/legal requirements; 2. Go beyond common practice; and 3. Overcome at least one of three implementation barriers: institutional, financial, or technical	The project passes the ACR-approved performance standard and regulatory surplus test. There is no mandate for the destruction of ODS CFC refrigerant. In the absence of this project, the ODS refrigerant would have been vented or leaked into the atmosphere under business-as-usual scenarios. The project sources meet all other requirements of the Methodology.

Regulatory Compliance	Projects must maintain material regulatory compliance. To do this, a regulatory body/bodies must deem that a project is not out of compliance at any point during a reporting period.	This project maintains regulatory compliance through the entirety of the reporting period.
Permanent	For projects with a risk of reversal of GHG removal enhancements, Project Proponents shall assess risk using an ACR-approved risk assessment tool.	There is no risk of reversal of GHG removal enhancements for this project type.
Net of Leakage	ACR requires Project Proponents to address, account for, and mitigate certain types of leakage, according to the relevant sector requirements and methodology conditions. Project Proponents must deduct leakage that reduces the GHG emissions reduction and/or removal benefit of a project in excess of any applicable threshold specified in the methodology.	Leakage is not applicable to this project type.
Independently Validated	ACR requires third-party validation of the GHG Project Plan by an accredited, ACR-approved VVB once during each Crediting Period and prior to issuance of ERTs. Validation can be conducted at the same time and by the same VVB as a full verification; however, the deadline for validation is determined by the methodology being implemented and the project Start Date (see above). Governing documents for validation are the ACR Standard, including sector-specific requirements, the relevant methodology, and the ACR Validation and Verification Standard.	This project is validated and verified by a third-party ACR-approved VVB in accordance with the ACR standard.
Independently Verified	Verification must be conducted by an accredited, ACR-approved VVB prior to any issuance of ERTs and at minimum specified intervals. ACR requires verifiers to provide a reasonable, not limited, level of assurance that the GHG assertion is without material discrepancy. ACR's materiality threshold is ±5%.	This project is validated and verified by a third-party ACR-approved VVB in accordance with the ACR standard.

Community and Environmental Impacts	ACR requires that all projects develop and disclose an impact assessment to ensure compliance with environmental and community safeguards best practices. Environmental and community impacts should be net positive, and projects must "do no harm" in terms of violating local, national, or international laws or regulations. Project Proponents must identify in the GHG Project Plan community and environmental impacts of their project(s). Projects shall also disclose and describe positive contributions as aligned with applicable sustainable development goals. Projects must describe the safeguard measures in place to avoid, mitigate, or compensate for potential negative impacts, and how such measures will be monitored, managed, and enforced. ACR does not require that a particular process or tool be used for the impact assessment as long as basic requirements defined by ACR are addressed (See Chapter 8). ACR projects can follow internationally recognized approaches such as The World Bank Safeguard Policies, or can be combined with the Climate Community and Biodiversity Alliance (CCBA) Standard or the Social Carbon Standard for the assessment, monitoring, and reporting of environmental and community impacts.	The Project maintains a net positive impact, as the quantified amount of GHG emissions has been eliminated and serves as an effort against climate change. Upon careful examination, no negative impacts from the project have been identified. Destruction of ODS refrigerant is highly monitored by the destruction facility, and destruction occurred within all applicable regulatory limits for emissions and local environmental impact.

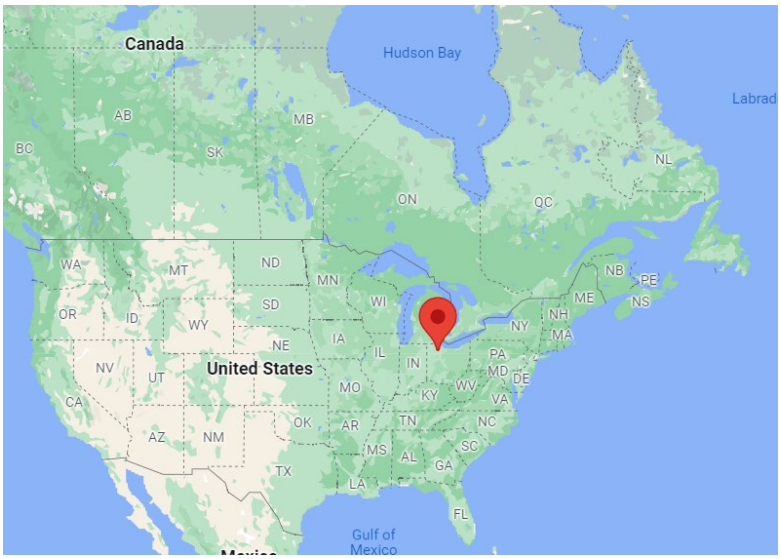
A6. PROJECT LOCATION

All collected ODS refrigerant was destroyed at A-Gas, located at 1100 Haskins Road, Bowling Green, OH 43402, United States of America.

GPS Coordinates:

Latitude: 41.3915524

Longitude: -83.671193



A7. REGULATORY COMPLIANCE

There is no law, statute, or regulation which requires the destruction of ODS in the United States.

Handling and transport of ODS is regulated through US EPA and the Clean Air Act, as well as US Department of Transportation. Tradewater conforms to the regulations by ensuring all employees involved with collection of refrigerant are EPA 609 certified, and all technicians handling any recovery or consolidation of refrigerant are 608 certified. Tradewater maintains a DOT Hazmat license and only utilizes carriers who have a DOT hazmat license.

The destruction facility, A-Gas, uses plasma-arc technology which is TEAP-certified.

A8. PARTIES

Table 3: Parties involved in Project				
Entity	***Name***	***Role/Title***	***Contact Info***	***Responsibility***
Tradewater, LLC	Timothy H. Brown	Chief Executive Officer	1550 W. Carroll, Suite 213 Chicago, IL 60607 312-273-5122 x 1000	Project Proponent – coordination of validation and verification of project
	Gabriel Plotkin	Chief Operating Officer	1550 W. Carroll, Suite 213 Chicago, IL 60607 312-273-5122 x 1004	Project Proponent – coordination of project implementation
A-Gas	Zach Babb	Environmental Projects Developer	1100 Haskins Rd Bowling Green, OH 43402 419-704-9151	Destruction Facility

A9. AGGREGATION AND PROGRAMMATIC DEVELOPMENT APPROACH

Not applicable to this project type.

B. METHODOLOGY

B1. APPROVED METHODOLOGY

The Project uses the Methodology for the Quantification, Monitoring, Reporting and Verification of Greenhouse Gas Emissions Reductions and Removal from the Destruction of Ozone Depleting Substances and High-GWP Foam Version 2.0 (hereinafter referred to as "Methodology").

B2. METHODOLOGY JUSTIFICATION

The Project involves the destruction of ODS refrigerant R-22 and R-115, and R-11 solvent, with trace amounts of R-12, R-114, R-113, and R-123. There is no requirement in the U.S. that CFC or HCFC refrigerants be destroyed. Because these refrigerants have been phased out and substituted by lower GWP materials, and their production has been banned, their destruction will not trigger any additional CFC or HCFC refrigerant production.

B3. PROJECT BOUNDARIES

The geographic boundary of the Project is A-Gas, located at 1100 Haskins Road, Bowling Green, OH 43402. The reporting period is 6/18/2024 – 6/28/2024, which is the same as the crediting period.

B4. IDENTIFICATION OF GHG SOURCES, SINKS, AND RESERVOIRS

Table 4: The Project's GHG Sources, Sinks and Reservoirs

GHG Source, Sink, or Reservoir (SSR)	Source Description	Gas	Quantification Method
Transport to Destruction Facility	Fossil fuel emissions from the vehicular transport of ODS from aggregation point to final destruction facility.	CO_2	$\boldsymbol{Tr\&Dest = (Q_{ODS} \times EF) + (Q_{BA} \times EF) + (Q_{intf} \times EF)}$
Destruction	Emissions of ODS from incomplete destruction at destruction facility.	ODS	$\boldsymbol{Tr\&Dest = (Q_{ODS} \times EF) + (Q_{BA} \times EF) + (Q_{intf} \times EF)}$
Destruction	Emissions from the oxidation of carbon contained in destroyed ODS.	CO_2	$\boldsymbol{Tr\&Dest = (Q_{ODS} \times EF) + (Q_{BA} \times EF) + (Q_{intf} \times EF)}$
Destruction	Fossil fuel emissions from the destruction of ODS at destruction facility.	CO_2	$\boldsymbol{Tr\&Dest = (Q_{ODS} \times EF) + (Q_{BA} \times EF) + (Q_{intf} \times EF)}$

Destruction	Indirect emissions from the use of grid-delivered electricity.	CO_2	$\boldsymbol{Tr\&Dest} = (\boldsymbol{Q_{ODS}} \times \boldsymbol{EF}) + (\boldsymbol{Q_{BA}} \times \boldsymbol{EF}) + (\boldsymbol{Q_{intf}} \times \boldsymbol{EF})$
Recovered ODS Stockpile	Emissions of ODS from recovered ODS stockpiles and EOL equipment (if not sent for destruction)	ODS	$\boldsymbol{BE_{refr}} = \sum_{i} (\boldsymbol{Q_{ref,i}} \times \boldsymbol{GWP_{i)}}$

B5. BASELINE SCENARIO

The baseline scenario selected for the project is the eventual leakage of ODS refrigerant, in which the emissions rate is 100%.

There is no law or regulation mandating the destruction of ODS refrigerant, although the CFC refrigerants have been phased out of production and import since January 1, 1994, with the HCFC refrigerants following suit in 2010. The refrigerants still in use in the United States were manufactured prior to the ban and are either used in existing equipment or in storage until a use can be found. As many systems are modernized to accept currently manufactured refrigerant (HFCs), there is less of a need for CFC and HCFC refrigerants. Many sources are looking for an end solution for stockpiled or otherwise obsolete refrigerant, with destruction being one solution.

Further, excess CFCs and HCFCs without a particular use remain in storage where they risk leaking into the atmosphere. The ultimate fate of these refrigerants is release into the atmosphere, either slowly overtime from leaks in equipment or storage, or in accidental venting during routine maintenance of existing systems. Such use and leaks are accounted for in the emissions rates.

B6. WITH-PROJECT SCENARIO

The project scenario is the destruction of eligible CFC refrigerants which would otherwise be removed from decommissioned equipment, reclaimed and used in existing antiquated systems, or stored indefinitely until a use for the refrigerants could be found. With the ban on production for these refrigerants, more and more systems and chillers are being retrofitted or decommissioned and can no longer support the use of these refrigerant types.

B7. GHG EMISSION REDUCTIONS AND REMOVALS

Through this project, greenhouse gas reductions are achieved by preventing the inevitable release of the refrigerant ODS into the atmosphere—either through leakage from degrading systems and storage, or from accidental venting during routine maintenance. The reductions are calculated by baseline emissions minus the project emissions.

B8. PERMANENCE

There is no risk of reversal for these project offsets, as once destroyed the associated GHG reductions are fixed.

C. ADDITIONALITY

C1. BASELINE

The Project uses the performance standard and regulatory surplus test to demonstrate additionality. The offsets generated by the Project yield higher GHG emission reductions than those generated by a business-as-usual scenario.

C2. PERFORMANCE STANDARD

Refrigerant ODS in a business-as-usual scenario is used only when the existing systems are old enough to still process this type of refrigerant. When this is not the case, ODS refrigerant is either stored in their original disposable containers for possible use, recovered and stored in larger containers for possible use, or recovered from existing systems in the process of decommissioning or retrofitting, thereby requiring an end-of-life solution for that material. All ODS sourced for this project came from the United States, not from any government stockpiles or installations for which the refrigerant was required to be destroyed and was destroyed at an eligible destruction facility.

Table 5: ODS and their respective GWPs and Emission Rates

ODS	100-year Global Warming Potential (MT CO2e/MT ODS)	10-Year Cumulative Emission Rate (%/10 years)
CFC-11	4,663	100%
CFC-12	10,239	100%
CFC-13	13,893	100%
CFC-113	5,824	100%
CFC-114	8,592	100%
CFC-115	7,665	100%
HCFC-22	1,764	100%
HCFC-123	79	100%

The GWP for each refrigerant species is above. The GHG emissions generated by the project are significantly less than the business-as-usual scenario for all refrigerant types, and the emissions reductions are greater than those in the baseline scenario.

The ODS sourced for this project, along with the project activities, meet the eligibility requirements:

- This material would otherwise eventually be vented into the atmosphere in the business-as-usual scenario
- The material was destroyed via an eligible destruction facility
- Tradewater has monitored the applicable SSRs within the project boundary
- The emissions have been quantified aligned with Chapter 5 of the Methodology, as indicated in section E and shown in the Quantification of Emissions Reductions (Appendix A).

C3. REGULATORY SURPLUS TEST

In order to pass the regulatory surplus test, a project must not be mandated by existing laws, regulations, statutes, legal rulings, or other regulatory frameworks in effect as of the start date that directly or indirectly affect the credited offsets. CFC and HCFC refrigerants are regulated under the Clean Air Act, 40 CFR Part 82, Subpart F. Neither these regulations, nor any other existing laws, regulations, statutes, legal rulings, or other regulatory frameworks in effect as of June 2024 require the project activity and its associated GHG emission reductions/removal enhancements. Therefore, the Project passes the Regulatory Surplus test.

C4. COMMON PRACTICE TEST

Not applicable

C5. IMPLEMENTATION BARRIERS TEST

Not applicable

D. GHG MONITORING PLAN

D1. MONITORED DATA AND PARAMETERS

Table 6: Monitored Data and Parameters

Data or Parameter Monitored	Legal Requirement Test
Unit of Measurement	N/A
Description	Emissions reductions achieved through this project and methodology must not be required by any existing law or regulation
Data Source	US EPA
Measurement Methodology	N/A
Data Uncertainty	Low
Monitoring Frequency	Once per project
Reporting Procedure	Review of existing laws around ODS refrigerant management
QA/QC Procedure	Regular review of current laws and regulations surrounding ODS refrigerants, particularly CFCs.
Notes	

Data or Parameter Monitored	Mass of ODS mixture in each container
Unit of Measurement	Pounds
Description	The total quantity of ODS refrigerant in a container.
Data Source	Weight tickets taken pre and post destruction for each individual container
Measurement Methodology	Section 5.1 of Methodology
Data Uncertainty	Low
Monitoring Frequency	Once per project
Reporting Procedure	Gross weight of cylinders using calibrated scale, taken before and after destruction
QA/QC Procedure	Scale calibrations performed monthly; CEMS data confirms destruction and weight throughout process
Notes	

Data or Parameter Monitored	Concentration of ODS mixture in each container
Unit of Measurement	Percent
Description	The distribution of ODS refrigerant in each container (along with any other contaminants, moisture, and HBR)
Data Source	Sample data via lab analysis provided by an AHRI-certified, third-party laboratory.
Measurement Methodology	Appendix C of Methodology

Data Uncertainty	Low
Monitoring Frequency	Once per project
Reporting Procedure	Lab analysis report
QA/QC Procedure	Composition and concentration are analyzed at an AHRI-certified laboratory that is not affiliated with the project proponent using the AHRI Standard 700.
Notes	

Data or Parameter Monitored	$Q_{refr,\ i}$
Unit of Measurement	Pounds
Description	The total weight of ODS refrigerant sent for destruction.
Data Source	Weight tickets taken both pre- and post-destruction coupled with lab analysis
Measurement Methodology	Section 5.1 of Methodology
Data Uncertainty	Low
Monitoring Frequency	Once per project
Reporting Procedure	Net weight of cylinders using calibrated scale
QA/QC Procedure	Scale calibrations performed monthly; CEMS data confirms destruction; lab analysis confirms mass percentage and identification of ODS refrigerant
Notes	

Data or Parameter Monitored	Q_{ODS}
Unit of Measurement	Pounds
Description	The total quantity of ODS refrigerant sent for destruction.
Data Source	Weight tickets taken both pre- and post-destruction coupled with lab analysis and quantifications
Measurement Methodology	Section 5.2 of Methodology
Data Uncertainty	Low
Monitoring Frequency	Once per project
Reporting Procedure	Net weight of cylinders using calibrated scale; lab analysis
QA/QC Procedure	Scale calibrations performed monthly; CEMS data confirms destruction; lab analysis confirms mass percentage and identification of ODS refrigerant
Notes	

E. GHG QUANTIFICATION

E1. BASELINE SCENARIO

The baseline emissions are 30,552 tCO_2e. For details, please see Appendix A (Quantification of Emissions Reductions).

Total Baseline Emissions:

$$BE_{refr} = \sum_{i} (Q_{ref,i} \times GWP_i)$$

Where		Units
BE_{refr}	Total quantity of refrigerant project baseline emissions during the reporting period	MT CO_2e
$Q_{ref,i}$	Total quantity of refrigerant ODS sent for destruction by the offset project	MT ODS
GWP_i	Global warming potential of ODS	MT CO_2e / MT ODS

E2. AFOLU PROJECT INVENTORY

Not applicable

E3. WITH-PROJECT SCENARIO

The project emissions are 67.26 $MTCO_2e$. Please see Appendix A for details (Quantification of Emissions Reductions).

Total Project Emissions:

$$PE_t = Rem_f + Tr\&Dest$$

Where		Units
PE_t	Total quantity of project emissions during the reporting period	MT CO_2e
Rem_f	Total GHG emissions from removal of high GWP foam in a non-enclosed equipment de-manufacturing system	MT CO_2e
$Tr\&Dest$	Total GHG emissions from transportation and destruction of ODS and high-GWP insulation foam/blowing agents	MT CO_2e

For this project, Rem_f is equal to zero as the Project is not involved with removal of high GWP foam.

Project Emissions from Transportation and Destruction Using the Default Emission Factors:

$$\boldsymbol{Tr\&Dest} = (\boldsymbol{Q_{ODS}} \times \boldsymbol{EF}) + (\boldsymbol{Q_{BA}} \times \boldsymbol{EF}) + (\boldsymbol{Q_{intf}} \times \boldsymbol{EF})$$

Where		Units
$\boldsymbol{Tr\&Dest}$	Total GHG emissions from ODS and high-GWP insulation foam/blowing agent transportation and destruction, as calculated using default emission factors	MT CO_2e
$\boldsymbol{Q_{ODS}}$	Total quantity of refrigerant, medical aerosol, and/or fire suppressant ODS sent for destruction in the project	MT ODS
$\boldsymbol{Q_{BA}}$	Total quantity of high-GWP blowing agent extracted from insulation foam and sent for destruction in the project	MT BA
$\boldsymbol{Q_{intf}}$	Total mass of intact foam with entrained high-GWP blowing agent sent for destruction	MT
$\boldsymbol{EF}$	Default emission factor for transportation and destruction of ODS or High-GWP Blowing Agent foam (7.5 for refrigerant, medical aerosol, fire suppressant or extracted blowing agent projects, 7.5 for intact high-GWP foam projects)	MT CO_2e/ MT ODS/ MT BA or MT

E4. LEAKAGE

As defined by the ACR Standard V 8.0, leakage is a term that refers to secondary effects where the GHG emission reductions of a project may be negated by shifts in market activity or shifts in materials, infrastructure, or physical assets associated with the project. Projects involving the destruction of CFC refrigerant would not encourage the increase of CFC production. Therefore, for this Methodology, "leakage" is not applicable.

E5. UNCERTAINTY

Calculating uncertainty is not applicable because the methodology as written does not require statistical sampling, nor is it a requirement within the quantifications.

E6. QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC)

QA/QC is performed at multiple stages from refrigerant collection and aggregation through destruction. Hard copy paperwork including bills of lading, source data, and supplementary documentation are checked by multiple parties to ensure consistency and accuracy against digital entries in Tradewater's electronic database. Container weights are checked at each stage (acquisition, delivery to warehouse, during consolidation and during filling) for accuracy and those numbers are then reviewed by third parties for accuracy. All this is done to ensure that data is accurate and precise at every stage and ensures that emission reduction calculations are accurate.

Tradewater ensures due diligence efforts are performed on the destruction facility by conducting compliance checks prior to destruction.

All documents related to the carbon project undergo a QA/QC process for accuracy. The process revolves around peer review, whereby calculations, reports, and other collateral are reviewed by other staff members prior to being shared with third parties. During the review, documents will be checked for:

- Correctly functioning formulas;
- Correct referencing of data sources;
- Justification of assumptions; and
- Use of most up-to-date protocols, standards, and quantification methodologies.

E7. GHG EMISSION REDUCTIONS AND REMOVALS

The emissions reductions are 30,485 $MTCO_2e$. The project emissions are quantified using the below equation indicated in the Methodology, and further details are available in Appendix A:

$$ER_t = BE_t - PE_t$$

WHERE		UNITS
ER_t	Total quantity of GHG emission reductions during the reporting period	MT CO_2e
BE_t	Total quantity of project baseline emissions during the reporting period	MT CO_2e
PE_t	Total quantity of project emissions during the reporting period	MT CO_2e

E8. *EX ANTE* CARBON CREDIT PROJECTION

Ex-ante estimation methods are not applicable to this methodology as the emissions reductions for the crediting period are equivalent to the time period and reductions of the reporting period.

E9. *EX ANTE* ESTIMATION METHODS

Ex-ante estimation methods are not applicable to this methodology as the emissions reductions for the crediting period are equivalent to the time period and reductions of the reporting period.

F. ENVIRONMENTAL AND SOCIAL IMPACTS

F1. ENVIRONMENTAL AND SOCIAL IMPACT SUMMARY

Environmental and social impacts were assessed via ACR's Environmental and Social Impact Assessment and independently prior to work on the project. Negative impacts were considered but none were identified.

Positive impacts include prevention of air pollution (item 2A of the Assessment) and the release of hazardous materials (item 2C of the Assessment). Additional details can be found in the Assessment, Appendix B. All other environmental impacts are considered neutral.

Social impacts, such as labour rights, involuntary resettlement, and respect for human rights, are not applicable to this project type and the project does not directly or indirectly affect these topics.

F2. SUSTAINABLE DEVELOPMENT GOALS

The following Sustainable Development Goals (SDGs) are relevant to this project:

SDG 9: Industry, Innovation, and Infrastructure

SDG 12: Responsible Consumption and Production

SDG 13: Climate Action

SDG 9: Industry, Innovation, and Infrastructure: As ODS refrigerants are either destroyed or utilized, innovation is required to replace the refrigerants with a less harmful, yet equally as effective, alternative to meet the needs for cooling, refrigeration, and climate-controlled transport throughout the world.

SDG 12: Responsible Consumption and Production: By eliminating harmful CFCs, entities requiring refrigerant for their operations will need to shift to a more sustainable and climate-friendly approach. Consumers will naturally move in the direction of lower impact refrigerants as old systems utilizing CFCs break down or CFC sources become harder to find.

SDG 13: Climate Action: By eliminating ODS refrigerants through destruction, these high GWP and ozone depleting substances will not be released into the atmosphere, whether through accidental release via

maintenance or mishandling, or from storage degradation overtime. The reduction of greenhouse gas emissions is a key step to reach the goals of the Paris Agreement, namely keeping global temperature increase under 2 degrees Celsius above pre- industrial levels.

The following SDGs are indirectly impacted by the project:

SDG 3: Good Health: Deterioration of the ozone layer allows for a higher concentration of UV light to reach the earth's surface. UV radiation is a known contributing factor to many human health problems, including skin cancer, eye damage, and immune system problems. Through the destruction of harmful CFCs and HCFCs, additional ozone depleting substances will never make their way into the atmosphere and damage the ozone layer, giving the ozone layer time to heal and protect the earth's surface from UV radiation.

SDG 14: Life Below Water: Marine animals, both large and small, are affected by increased UVB radiation. UVB radiation is higher energy than other forms of UV radiation, and is known to affect the reproduction of water-dwelling animals as well as the viability of phytoplankton, a key member of aquatic food webs. Increased UVB penetration in the upper water column may result in the destabilization of aquatic water systems. By limiting the presence of harmful CFCs and HCFCs via destruction, additional ozone depleting substance swill never make their way into the atmosphere and continue to damage the ozone layer, giving the layer time to heal and protect the earth's surface – including water systems - from UVB radiation.

SDG 15: Life on Land: As ACR notes in their SDG Contributions Reporting Tool, there may be co-benefits to terrestrial life with regard to ozone depleting substance management, as decreased UV radiation allows for plant life to be a more effective and higher capacity carbon sink than in the presence of high UV radiation. Again, the preservation of the ozone layer through ODS destruction will aid in the capacity for plants to store carbon.

The full report is included under Appendix C.

F3. STAKEHOLDER COMMENTS AND CONSULTATION

The Project did not receive any comments during the public comment period on the ACR website.

G. OWNERSHIP AND TITLE

G1. PROOF OF TITLE

Tradewater, LLC is the Project Proponent. Tradewater possesses the title and rights to all refrigerants destroyed under this Project, which is demonstrated by Refrigerant Purchase Agreements (RPAs) or other similar documentation. As such, the rights and title to all carbon offset credits created by this Project belong to Tradewater, LLC.

G2. CHAIN OF CUSTODY

Chain of custody is not needed in this project because the offsets have not been bought or sold previously, and the Project does not have a forward option contract.

G3. PRIOR APPLICATION

The project proponent has not applied for GHG emission reductions or removal credits for the project through any other GHG emissions trading system or program.

H. PROJECT TIMELINE

H1. START DATE

The project start date is June 18, 2024 -- the date on which the earliest destruction activity of the project commenced. The Project start date determination is consistent with the ACR Standard and Methodology.

H2. PROJECT TIMELINE

Relevant Project Activities	Timeline
Project Listed/Initiation of Project Activities	May 8, 2024
Project Term	N/A
Crediting Period	June 18, 2024 – June 28, 2024
Reporting Period	June 18, 2024 – June 28, 2024
Frequency of Monitoring, Reporting, and Verification	Once per reporting period

Appendices

List all appendices referenced throughout the GHG Project Plan in the table below, omitting and providing additional rows as needed. Appendices not provided under separate cover must be included within this document. For submission of the final versions of appendices provided under separate cover, provide exact filenames including the correct version and/or date. Where relevant to the project, the appendices marked with an asterisk (*) must be submitted on the ACR Registry, denoted as a GHG Project Plan document type, and maintained as public. All appendices are subject to validation.

Appendix	**Document Title**	**Provided under separate cover? (Yes/No)**	**Filename** *if provided under separate cover*
A	Quantification of Emission Reductions	No	N/A
B	Environmental and Social Impact Assessment*	Yes	TWUSODS5_EnvironmentalAssessment_v1
C	SDG Contributions Report*	Yes	ACR-SDG-Cont-Report-Industrial-Project-v1.0-1
D	Certificates of Destruction	No	N/A
E	Multi-Site Design Document*	No	N/A

Attestations

The Project Proponent hereby represents and warrants to the American Carbon Registry, its affiliates and supporting organizations, and any assignee of substantially all of the assets comprising the ACR, that all information contained herein and in all appendices is true, correct, and complete to the best of their knowledge, information, and belief and they further agree to notify ACR promptly in the event that the Project Proponent becomes aware that any representation or warranty set forth above or in any appendix submitted under separate cover was not true when made.

Project Proponent Signature:	
Project Proponent Representative Signature:	× 
Name:	Tim Brown
Title:	Chief Executive Officer
Organization:	Tradewater, LLC
Date:	09/03/2024

Appendix A: Quantification of Emission Reductions

Project	Tradewater US - ODS - #5
Standard	ACR Standard: Requirements and Specifications for the Quantification, Monitoring, Reporting, Verification, and Registration of Project-based GHG Emissions Reductions and Removals Version 8.0
Methodology	Destruction of Ozone Depleting Substances and High-GWP Foam Version 2.0
Reporting Period	06/18/2024-06/28/2024

Number of Batches 2

Batch	Batch ID	Pure/Mixed
Batch 1	Plas-1251	Pure
Batch 2	Plas-1252	Mixed

Parameter	Starting Batc	Ending Batch We	Residue/Oil We	Destruction Sta	Destruction End
Symbol	m_{ref_start}	m_{ref_end}	m_{HBR}	N/A	N/A
Unit	lb	lb	lb	N/A	N/A
Parameter Type	Measured	Measured	Measured	Date	Date
Source	COD	COD	COD	COD	COD
Batch 1	6380	90	386	6/18/2024	6/21/2024
Batch 2	13610	130	0	6/20/2024	6/28/2024

Batch	Sample	Parameter	Concentration of CFC11	Concentration of CFC12	Concentration of CFC13	Concentration of CFC113	Concentration of CFC114	Concentration of CFC115	Concentration of HCFC22	Concentration of HCFC123	Moisture	Saturation Point of main ODS	Does moisture meet protocol reqs?	High Boiling Residue	Does HBR meet protocol reqs?
		Symbol	X_{CFC11}	X_{CFC12}	X_{CFC13}	X_{CFC113}	X_{CFC114}	X_{CFC115}	X_{HCFC22}	$X_{HCFC123}$	q	q_{ODS}	$q<0.75*q_{ODS}$	HBR	HBR<10%
		Unit	%	%	%	%	%	%	%	%	ppm	ppm	N/A	%	N/A
		Parameter Type	Measured	Measured	Measured	Measured	Measured	Measured	Measured	Measured	Measured	Literature v	Calculated	Measured	Calculated
		Source	Sampling Certificate	Sampling Certificate	Sampling Certificate	Sampling Certificate	Sampling Certificate	Sampling Certificate	Sampling Certificate	Sampling Certificate	Sampling Certificate	Sampling Certificate	N/A	Sampling Certificate	N/A
Batch 1	**Sample 1**		98.21	0.16	0	0.9	0	0	0.02	0.22	22	103	Yes	5.118	Yes
Batch 2	**Sample 1**		0.65	0.89	0	0.09	0.06	19.43	77.21	0.04	55	1263	Yes	0.747	Yes
	Sample 2		0.63	0.97	0	0.08	0.13	19.48	77.03	0.04	70	1263	Yes	0.802	Yes

Consolidation & Shipments

Transport ID	Aggregation Location	Address of Aggre	Shipping Date	Shipping Company
4391618	ewater Wareh	nue, Elk Grove V	5/24/2024	Landstar Ranger Inc
TMLU925103-1	ewater Wareh	nue, Elk Grove V	6/5/2024	Triple M Logistics Inc

Purchase > 500lbs

Purchase ID	Final Net Weight	Consolidation
D-73126	5277	LP
D-75792	1534	HP

Shipments > 500 lbs

Shipment	Final Net Weight	Consolidation
D-73126	5277	LP
D-75792	1534	HP

Project	Tradewater US - ODS - #5
Standard	ACR Standard: Requirements and Specifications for the Quantification, Monitoring, Reporting, Verification, and Registration of Project-based GHG Emissions Reductions and Removals Version 8.0
Methodology	Destruction of Ozone Depleting Substances and High-GWP Foam Version 2.0
Reporting Period	06/18/2024-06/28/2024

Batch	Sample	Parameter	Gross quantity of refrigerant ODS sent for destruction	Total eligible refrigerant ODS sent for destruction	Baseline Emissions of refrigeran	Total mass of project baseline
		Symbol	Q_{Gref}	Q_{Eref}	BE_{ODS}	BE
		Unit	tODS	tODS	tCO_2e	tCO_2e
		Parameter Type	Calculated	Calculated	Calculated	Calculated
		Equation	$Q_{Gref}=(m_{ref\_start}-m_{ref\_end})*X$	$Q_{eref}=Q_{Gref}-(Q_{Gref}*q)-(Q_{Gref}*HBR)$	$BE_{ODS}=Q_{ereff}*GWP$	$BE=\Sigma BE_{ODS}$
		Source	N/A	N/A	ACR Methodology	ACR Methodology
Including Residue						
Batch 1	Sample 1	**CFC-11**	2.802010948	2.658542384	12396.78	12396.78
		CFC-12	0.00456493	0.004331196	44.34712	44.34712
		CFC-13	0	0	0	0
		CFC-113	0.02567773	0.024362979	141.89	141.89
		CFC-114	0	0	0	0
		CFC-115	0	0	0	0
		HCFC-22	0.000570616	0.0005414	0.955029	0.955029
		HCFC-123	0.006276778	0.005955395	0.470476	0.470476
Batch 2	Sample 1	**CFC-11**	0.039743556	0.039444486	183.9296	183.9296
		CFC-12	0.054418099	0.054008603	552.9941	552.9941
		CFC-13	0	0	0	0
		CFC-113	0.005502954	0.005461544	31.80803	31.80803
		CFC-114	0.003668636	0.003641029	31.28372	31.28372
		CFC-115	1.188026599	1.179086699	9037.7	9037.7
		HCFC-22	4.72092299	4.685398044	8265.042	8265.042
		HCFC-123	0.002445757	0.002427353	0.191761	0.191761
Batch 2	Sample 2	**CFC-11**	0.038520677	0.038209045	178.1688	178.1688
		CFC-12	0.059309614	0.058829799	602.3583	602.3583
		CFC-13	0	0	0	0
		CFC-113	0.004891515	0.004851942	28.25771	28.25771
		CFC-114	0.007948711	0.007884406	67.74282	67.74282
		CFC-115	1.191083795	1.181447927	9055.798	9055.798
		HCFC-22	4.709917082	4.671813853	8241.08	8241.08
		HCFC-123	0.002445757	0.002425971	0.191652	0.191652

Batch	Sample	Parameter	Total GHG emissions from	Total mass of project emission
		Symbol	Tr+Dest	PE
		Unit	tCO_2e	tCO_2e
		Parameter	Calculated	Calculated
		Equation	$Tr+Dest=\Sigma Q_{TotalODS}*EF_{T\&D}$	PE = Tr+Dest + Sub
		Source	ACR Methodology	ACR Methodology
Including Residue				
Batch 1	Sample 1		21.39811	21.39811
Batch 2	Sample 1		45.85795	45.85795
Batch 2	Sample 2		45.85795	45.85795

Batch	Sample	Parameter	Gross quantity of refrigerant ODS sent for destruction	Total eligible refrigerant ODS sent for destruction	Baseline Emissions of refrigerant ODS	Total mass of project baseline emissions
		Symbol	Q_{Gref}	Q_{Eref}	BE_{ODS}	BE
		Unit	tODS	tODS	tCO_2e	tCO_2e
		Parameter Type	Calculated	Calculated	Calculated	Calculated
		Equation	$Q_{Gref}=(m_{ref\_start}-m_{ref\_end}-m_{HBR})*X$	$Q_{Eref}=Q_{Gref}-(Q_{Gref}*q)$	$BE_{ODS}=Q_{refr}*GWP$	$BE=\Sigma BE_{ODS}$
		Source	N/A	N/A	ACR Methodology	ACR Methodology
Excluding Residue						
Batch 1	Sample 1	**CFC-11**	2.630059243	2.630001382	12263.7	12263.7
		CFC-12	0.004284793	0.004284698	43.87103	43.87103
		CFC-13	0	0	0	0
		CFC-113	0.024101958	0.024101428	140.3667	140.3667
		CFC-114	0	0	0	0
		CFC-115	0	0	0	0
		HCFC-22	0.000535599	0.000535587	0.944776	0.944776
		HCFC-123	0.00589159	0.00589146	0.465425	0.465425
		CFC-11	0.039743556	0.03974137	185.314	185.314
		CFC-12	0.054418099	0.054415106	557.1563	557.1563
		CFC-13	0	0	0	0
		CFC-113	0.005502954	0.005502651	32.04744	32.04744
		CFC-114	0.003668636	0.003668434	31.51919	31.51919
		CFC-115	1.188026599	1.187961257	9105.723	9105.723
		HCFC-22	4.72092299	4.720663339	8327.25	8327.25

Batch	Sample	Parameter	Total GHG emissions from ODS transportation and destruction	Total mass of project emissions
		Symbol	Tr+Dest	PE
		Unit	tCO_2e	tCO_2e
		Parameter	Calculated	Calculated
		Equation	$Tr+Dest=\Sigma Q_{TotalODS}*EF_{T\&D}$	PE = Tr+Dest + Sub
		Source	ACR Methodology	ACR Methodology
Excluding Residue				
Batch 1	Sample 1		21.39811	21.39811

Batch 2	Sample 1	**HCFC-123**	0.002445757	0.002445623	0.193204	0.193204
		CFC-11	0.038520677	0.038517981	179.6093	179.6093
		CFC-12	0.059309614	0.059305462	607.2286	607.2286
		CFC-13	0	0	0	0
		CFC-113	0.004891515	0.004891172	28.48619	28.48619
		CFC-114	0.007948711	0.007948155	68.29055	68.29055
		CFC-115	1.191083795	1.191000419	9129.018	9129.018
		HCFC-22	4.709917082	4.709587388	8307.712	8307.712
Batch 2	Sample 2	**HCFC-123**	0.002445757	0.002445586	0.193201	0.193201

Batch 2	Sample 1	45.85795	45.85795
Batch 2	Sample 2	45.85795	45.85795

Project	Tradewater US - ODS - #5
Standard	ACR Standard: Requirements and Specifications for the Quantification, Monitoring, Reporting, Verification, and Registration of Project-based GHG Emissions Reductions and Removals Version 8.0
Methodolo	Destruction of Ozone Depleting Substances and High-GWP Foam Version 2.0
Reporting	06/18/2024-06/28/2024

	Parameter	Total mass of emission reductions	Total mass of project baseline emissions	Total mass of project emissions
	Symbol	ER	BE	PE
	Unit	tCO_2e	tCO_2e	tCO_2e
	Parameter	Calculated	Calculated	Calculated
	Equation	ER = BE - PE	$BE = \Sigma BE_{ODS}$	PE = Tr+Dest
	Source	ACR Methodology	ACR Methodology	ACR Methodology
Inclusive of Residue				
Batch 1	**Sample 1**	12563.05	12584.45	21.39811
Batch 2	**Sample 1**	18057.09	18102.95	45.85795
Batch 2	**Sample 2**	18127.74	18173.6	45.85795
Exclusive of Residue				
Batch 1	**Sample 1**	12427.95	12449.34	21.39811
Batch 2	**Sample 1**	18193.35	18239.2	45.85795
Batch 2	**Sample 2**	18274.68	18320.54	45.85795

Batch	Total mass of emission reductions	Total mass of project baseline emissions	Total mass of project emissions
Batch 1	12427.95	12449.34	21.39811
Batch 2	18057.09	18102.95	45.85795
Total	30485.04	30552.29	67.25606

Environmental and Social Impact Assessment

VERSION 1.0

2023-07-01

Chapter 8 of the *ACR Standard v8.0* requires all Project Proponents to prepare and disclose an environmental and social impact assessment. The use of this template, provided within or as an appendix to the GHG Project Plan, is required. Please respond to the questions below as completely and accurately as possible based on project details.

SECTION I: GENERAL PROJECT DETAILS		
1	**Project Title**	Tradewater US - ODS - #5
2	**ACR Project ID**	ACR1041
3	**Provide an overview of the project activity.** The project activity is the destruction of eligible ODS refrigerant, mainly R-11 and R-22 with additional HCFCs and CFCs, for which ownership was transferred to Tradewater for the purpose of destruction at an eligible desturciton facility located in the United States.	
4	**Provide the GHG Project's geographic location.** Bowling Green, OH, United States	
5	**Provide an overview of the GHG Project's relevant stakeholders (i.e., individuals or groups that can potentially affect or be affected by the project activities and who may live within or outside the Project area).** Stakeholders as defined by the ACR Standard are not applicable to this Methodology.	

SECTION II: ENVIRONMENTAL & SOCIAL RISKS AND IMPACTS

Taking into account the scope and scale of the project activity, provide an assessment of the GHG Project's environmental and social risks and impacts for the project duration for each of the areas below. Categorize each risk/impact as positive, negative, or neutral and substantiate the selected category, noting all defined and defensible assumptions.

When the GHG Project poses risks of negative impacts, describe how impacts will be avoided, reduced, mitigated or compensated, commensurate with the risk, and detail how risks and negative impacts will be monitored, how often, and by whom.

1 BIODIVERSITY CONSERVATION AND SUSTAINABLE MANAGEMENT OF LIVING NATURAL RESOURCES

1A Terrestrial and Marine Biodiversity and Ecosystems

☒Positive ☐Negative ☐Neutral

1. **Describe the reasoning for selection:**
   There is evidence that increased UV rays as a result of deterioration of the ozone has an negative impact on aquatic ecosystems, specifically phytoplankton, and other fauna's reproduction. Therefore, the project indirectly has a net positive effect on aquatic biodiversity as the prevention of ODS entering the atmosphere allows the ozone layer to heal, and ultimately reduce harmful UV rays.
2. **If negative, describe how adverse impacts will be avoided, reduced, mitigated, or compensated commensurate with the risk:**
   N/A
3. **If negative, detail how risks and impacts will be monitored, how often, and by whom:**
   N/A

1B Habitat of Rare, Threatened, and Endangered Species, Including Areas Needed for Habitat Connectivity

☐Positive ☐Negative ☒Neutral

1. **Describe the reasoning for selection:**
   There are no impacts to localized habitats that have been identified as a result of the project activity.
2. **If negative, describe how adverse impacts will be avoided, reduced, mitigated, or compensated commensurate with the risk:**
   N/A
3. **If negative, detail how risks and impacts will be monitored, how often, and by whom:**
   N/A

1C **Natural Forests, Grasslands, Wetlands, or High Conservation Value Habitats**

☐Positive ☐Negative ☒Neutral

1. **Describe the reasoning for selection:**
   No impacts to natural forests, grasslands, wetlands, or high conservation value habitats have been identified as a result of the project activity.
2. **If negative, describe how adverse impacts will be avoided, reduced, mitigated, or compensated commensurate with the risk:**
   N/A
3. **If negative, detail how risks and impacts will be monitored, how often, and by whom:**
   N/A

1D **Soil Degradation and Soil Erosion**

☐Positive ☐Negative ☒Neutral

1. **Describe the reasoning for selection:**
   No impacts to soil have been identified as a result of the project activity.
2. **If negative, describe how adverse impacts will be avoided, reduced, mitigated, or compensated commensurate with the risk:**
   N/A
3. **If negative, detail how risks and impacts will be monitored, how often, and by whom:**
   N/A

1E **Water Consumption and Stress**

☐Positive ☐Negative ☒Neutral

1. **Describe the reasoning for selection:**
   Impacts to water consumption have not been identified as a result of this project activity.
2. **If negative, describe how adverse impacts will be avoided, reduced, mitigated, or compensated commensurate with the risk:**
   N/A
3. **If negative, detail how risks and impacts will be monitored, how often, and by whom:**
   N/A

2 RESOURCE EFFICIENCY AND POLLUTION PREVENTION

2A Pollutant Emissions to Air

☒Positive ☐Negative ☐Neutral

1. **Describe the reasoning for selection:**
   ODS kept in storage will continue to leak into the atmosphere as the containers are not designed to store the material for long periods of time. By destroying the refrigerant ODS, the negative impact to the ozone layer and the atmosphere is eliminated. Therefore, the net impact is positive.
2. **If negative, describe how adverse impacts will be avoided, reduced, mitigated, or compensated commensurate with the risk:**
   N/A
3. **If negative, detail how risks and impacts will be monitored, how often, and by whom:**
   N/A

2B Pollutant Discharges to Water, Noise, and Vibration

☐Positive ☐Negative ☒Neutral

1. **Describe the reasoning for selection:**
   No impacts to pollutant discharges to water, noise, or vibration have been identified as a result of this project activity.
2. **If negative, describe how adverse impacts will be avoided, reduced, mitigated, or compensated commensurate with the risk:**
   N/A
3. **If negative, detail how risks and impacts will be monitored, how often, and by whom:**
   N/A

2C	**Generation of Waste and Release of Hazardous Materials, Chemical Pesticides, and Fertilizers** ☒Positive ☐Negative ☐Neutral 1. **Describe the reasoning for selection:** ODS destruction directly removes the threat of the release of hazardous materials. Therefore, the destruction has a net positive impact on the issue of generation of waste and release of hazardous materials. 2. **If negative, describe how adverse impacts will be avoided, reduced, mitigated, or compensated commensurate with the risk:** N/A 3. **If negative, detail how risks and impacts will be monitored, how often, and by whom:** N/A
3	**LABOR RIGHTS AND WORKING CONDITIONS**
3A	**Safe And Healthy Working Conditions for Employees** ☐Positive ☐Negative ☒Neutral 1. **Describe the reasoning for selection:** This project activity does not impact working conditions for employees . 2. **If negative, describe how adverse impacts will be avoided, reduced, mitigated, or compensated commensurate with the risk:** N/A 3. **If negative, detail how risks and impacts will be monitored, how often, and by whom:** N/A
3B	**Fair Treatment of All Employees, Avoiding Discrimination, and Ensuring Equal Opportunities** ☐Positive ☐Negative ☒Neutral 1. **Describe the reasoning for selection:** The project activity does not contribute to nor work against fair treatment of employees. 2. **If negative, describe how adverse impacts will be avoided, reduced, mitigated, or compensated commensurate with the risk:** N/A 3. **If negative, detail how risks and impacts will be monitored, how often, and by whom:** N/A

3C **Forced Labor, Child Labor, or Trafficked Persons, and Protections for Contracted Workers Employed by Third Parties**

☐Positive ☐Negative ☒Neutral

1. **Describe the reasoning for selection:**
   This project type and activity does not impact this item.
2. **If negative, describe how adverse impacts will be avoided, reduced, mitigated, or compensated commensurate with the risk:**
   N/A
3. **If negative, detail how risks and impacts will be monitored, how often, and by whom:**
   N/A

4 LAND ACQUISITION AND INVOLUNTARY RESETTLEMENT

4A Forced Physical and/or Economic Displacement

☐Positive ☐Negative ☒Neutral

1. **Describe the reasoning for selection:**
   The project type and activity does not impact this item.
2. **If negative, describe how adverse impacts will be avoided, reduced, mitigated, or compensated commensurate with the risk:**
   N/A
3. **If negative, detail how risks and impacts will be monitored, how often, and by whom:**
   N/A

5 RESPECT FOR HUMAN RIGHTS, STAKEHOLDER ENGAGEMENT

5A Human Rights and Discrimination

☐Positive ☐Negative ☒Neutral

1. **Describe the reasoning for selection:**
   The project type and activity does not impact this item.
2. **If negative, describe how adverse impacts will be avoided, reduced, mitigated, or compensated commensurate with the risk:**
   N/A
3. **If negative, detail how risks and impacts will be monitored, how often, and by whom:**
   N/A

5B Abidance by the International Bill Of Human Rights[1] and Universal Instruments Ratified by the Host Country

☐Positive ☐Negative ☒Neutral

1. **Describe the reasoning for selection:**
   The project type and activity does not impact this item.
2. **If negative, describe how adverse impacts will be avoided, reduced, mitigated, or compensated commensurate with the risk:**
   N/A
3. **If negative, detail how risks and impacts will be monitored, how often, and by whom:**
   N/A

[1] https://www.ohchr.org/en/what-are-human-rights/international-bill-human-rights

5C	**Consideration and Response to Local Stakeholders' Views** ☐Positive ☐Negative ☒Neutral 1. **Describe the reasoning for selection:** The project does not impact this item. 2. **If negative, describe how adverse impacts will be avoided, reduced, mitigated, or compensated commensurate with the risk:** N/A 3. **If negative, detail how risks and impacts will be monitored, how often, and by whom:** N/A
6	**GENDER EQUALITY**
6A	**Equal Opportunities in the Context of Gender** ☐Positive ☐Negative ☒Neutral 1. **Describe the reasoning for selection:** The project type does not impact this item. 2. **If negative, describe how adverse impacts will be avoided, reduced, mitigated, or compensated commensurate with the risk:** N/A 3. **If negative, detail how risks and impacts will be monitored, how often, and by whom:** N/A
6B	**Violence Against Women and Girls** ☐Positive ☐Negative ☒Neutral 1. **Describe the reasoning for selection:** The project type does not impact this item. 2. **If negative, describe how adverse impacts will be avoided, reduced, mitigated, or compensated commensurate with the risk:** N/A 3. **If negative, detail how risks and impacts will be monitored, how often, and by whom:** N/A

6C **Equal Pay for Equal Work**

☐Positive ☐Negative ☒Neutral

1. **Describe the reasoning for selection:**
   The project type does not impact this item.
2. **If negative, describe how adverse impacts will be avoided, reduced, mitigated, or compensated commensurate with the risk:**
   N/A
3. **If negative, detail how risks and impacts will be monitored, how often, and by whom:**
   N/A

SECTION III: COMMUNITY-BASED PROJECTS

1 Community-based projects are those in which project activities engage or otherwise impact one or more communities. A community includes groups of people who live within or adjacent to the project area, including indigenous peoples and other local communities, as well as any groups that derive income, livelihood, or cultural values from the area.

Is the Project a community-based Project? ☐ Yes ☒ No

2 If the project **IS** a community-based project, include a description of the community(ies), stakeholder engagement, and benefit sharing arrangements below.

2A **Community and Stakeholder Identification and Consultation**

1. **Describe the process to identify community(ies) affected by the GHG Project:**
   N/A
2. **Provide detailed information regarding the community stakeholder consultation process undertaken as part of the project design and implementation, including demonstration that the consultations with Indigenous Peoples and local communities were conducted in a manner that is inclusive, culturally appropriate, and respectful of local knowledge:**
   N/A
3. **Provide documentation of meetings held, attendees, and meeting minutes, as well as stakeholder comments and concerns and how those were addressed. These documents can be provided as attachments with file references stated below:**
   N/A

2B **Indigenous Peoples, Local Communities, Cultural Heritage, and Free Prior and Informed Consent**

Where the project directly or indirectly impacts Indigenous Peoples and local communities, including livelihoods, ancestral knowledge, and cultural heritage, describe the steps taken to:

1. **Recognize, respect, and promote the protection of the rights of Indigenous Peoples and local communities in line with applicable human rights law, and the United Nations Declaration on the Rights of Indigenous Peoples and ILO Convention 169 on Indigenous and Tribal Peoples[2]:**
   N/A
2. **Identify the rights-holders possibly affected (including customary rights of local rights holders):**
   N/A
3. **Avoid eviction or any physical or economic displacement, including through access restrictions to lands, territories, or resources:**
   N/A
4. **Preserve and protect cultural heritage consistent with Indigenous Peoples and local community(ies) protocols/rules/plans on the management of cultural heritage and/or UNESCO Cultural Heritage Conventions:**
   N/A
5. **As applicable, provide evidence of Free, Prior and Informed Consent by describing the process that was conducted to ensure that: consent was sought sufficiently in advance of any project, plan, or action taking place; consent was independently decided upon collectively by the rights-holders without coercion, intimidation, or manipulation; and consent was based on accessible, accurate, timely, and sufficient information provided in a culturally appropriate way:**
   N/A

[2] https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf

2C **Relocation or Resettlement**

1. **Was there/will there be any relocation or resettlement resulting from project design or implementation?**
   N/A
   a. **If yes, describe the circumstances:**
      N/A
   b. **If yes, was the relocation or resettlement a result of voluntary land transaction(s) between the buyer and seller?**
      N/A
   c. **If yes, did the relocation or resettlement change the land use of the affected groups or communities?**
      N/A
   d. **If yes, was relocation or resettlement involuntary (e.g., through eminent domain)?**
      N/A

2D **Robust Benefit Sharing**

1. **Describe how a benefit sharing plan (that includes arrangements that are appropriate to the context and consistent with applicable national rules and regulations) was or will be designed and implemented:**
   N/A
2. **Has a draft or final benefit sharing plan been shared with affected communities in a form, manner, and language understandable to them?**
   N/A
3. **Has/will the benefit-sharing outcomes be made public (subject to legal restrictions)?**
4. N/A

2E **Negative Impacts and Mitigation Measures**

Identify any risks or claims of negative environmental and/or social impacts other than those listed in Part II:

1. **Describe the negative impact, risk, or claim:**
   N/A
2. **Describe how any negative impacts will be avoided, reduced, mitigated, or compensated commensurate with the risk:**
   N/A
3. **Detail how negative risks and impacts will be monitored, how often, and by whom:**
   N/A

SECTION IV: PREPARER INFORMATION	
Name	Timothy H. Brown
Title	Chief Executive Officer
Organization	Tradewater LLC
Date	8/15/2024

Sustainable Development Goals (SDGs) Contribution Report

INDUSTRIAL PROJECTS

VERSION 1.0

2023-07-19

This report, as required in the *ACR Standard v8.0* , provides a qualitative assessment of the positive impacts the project is delivering to the United Nations Sustainable Development Goals (SDGs). The identified contributions are based on the standardized *ACR SDG Contributions Reporting Tool* .

ACR Project #:	ACR1041
Project Name:	Tradewater US - ODS - #5

1. Select the applicable ACR project type from the drop-down menu below. This will auto populate the UN SDG targets to which project implementation is likely to positively contribute, as conservatively identified in the ACR SDG Contributions Reporting Tool.
2. If your project positively contributes to any additional SDG targets, such as the "conditional" targets identified in the ACR SDG Contributions Reporting Tool, please include those in the extra rows provided.
3. Provide a description of how the project contributes to each of the SDG targets identified.
4. Where the SDG objectives of the host country are relevant and such is feasible, provide information on how the project activity is consistent with the SDG objectives of the host country.
5. Hide any unused rows, save the completed template as a PDF, and upload it to the ACR Registry with the GHG Project Plan.

Project Type:	Destruction of Ozone Depleting Substances (ODS) and High-Global Warming Potential (GWP) Foam

DIRECT POSITIVE IMPACT TO SDG TARGETS	DESCRIPTION OF PROJECT'S CONTRIBUTION(S) TO SDG TARGET
SDG 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation 9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.	As ODS refrigerants are either destroyed or utilized, innovation is required to replace the refrigerants with a less harmful, yet equally as effective, alternative to support the needs for cooling, refrigeration, and climate controlled transport throughout the world. Directly related to this is the upgrading, retrofitting, and re-imagining within HVAC technologies globally so systems are compatible with newer, more sustainable refrigerant options.
SDG 12: Ensure sustainable consumption and production patterns 12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment	By eliminating harmful CFCs and HCFCs, entities requiring refrigerant for their operations will need to shift to a more sustainable and climate-friendly approach. Consumers will naturally move in the direction of lower impact refrigerants as old systems utilizing CFCs break down or CFC sources become harder to find.

SDG 13: Take urgent action to combat climate change and its impacts 13.2 Integrate climate change measures into national policies, strategies and planning	By eliminating ODS refrigerants through destruction, these high GWP and ozone depleting substances will not be released into the atmosphere, whether through accidental release via maintenance or mishandling, or from storage degradation overtime. The reduction of greenhouse gas emissions is a key step to reach the goals of the Paris Agreement, namely keeping global temperature increase under 2 degrees Celsius above pre- industrial levels.

INDIRECT POSITIVE IMPACT TO SDG TARGETS	DESCRIPTION OF PROJECT'S CONTRIBUTION(S) TO SDG TARGET
SDG 3: Ensure healthy lives and promote well-being for all at all ages 3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.	Deterioration of the ozone layer allows for a higher concentration of UV light to reach the earth's surface. UV radiation is a known contributing factor to many human health problems, including skin cancer, eye damage, and immune system problems. Through the destruction of harmful CFCs and HCFCs, additional ozone depleting substances will never make their way into the atmosphere and damage the ozone the layer, giving the layer time to heal and protect the earth's surface from UV radiation.

SDG 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development 14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution	Marine animals, both large and small, are affected by increased UVB radiation. UVB radiation is higher energy than other forms of UV radiation, and are known to affect the reproduction of water-dwelling animals as well as the viability of phytoplankton, a key member of aquatic food webs. Increased UVB penetration in the upper water column may result in the destabilization of aquatic water systems. By limiting the presence of harmful CFCs and HCFCs via destruction, additional ozone depleting substances will never make their way into the atmosphere and continue to damage the ozone the layer, giving the layer time to heal and protect the earth's surface – including water systems -- from UVB radiation.
SDG 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss 15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.	As ACR notes in their SDG Contributions Reporting Tool, there may be co-benefits to terrestrial life with regard to ozone depleting substance management, as decreased UV radiation allows for plant life to be a more effective and higher capacity carbon sink than in the presence of high UV radiation. Again, the preservation of the ozone layer through ODS destruction will aid in the capacity for plants to store carbon.

INFORMATION ON HOW THE PROJECT ACTIVITY IS CONSISTENT WITH THE SDG OBJECTIVES OF THE HOST COUNTRY, WHERE THE SDG OBJECTIVES ARE RELEVANT, AND SUCH IS FEASIBLE.	The United States has already committed to the SDGs laid out by the 2030 Agenda for Sustainable Development, and as such the project activity is aligned with the effort and spirit for working toward those goals.

A-GAS
TOGETHER WE CAN

1100 Haskins Road, Bowling Green, OH 43402 419-867-8990

CERTIFICATE OF DESTRUCTION

Developer of ODS Destroyed	Tradewater	Generator	Tradewater
	650 Morse Ave	Name	N/A
	Elk Grove Village IL, 60007		
Certificate ID/PO#:	Plas- 1251	Manifest #:	N/A
		Destruction Unit :	PDU 1
Generator EPA ID:	N/A	Container ID#:	5005

The following Quantity of mixed Ozone Depleting Substances were destroyed:

Profile ID/Description:	Tradewater		
Batch Number:	Plas- 1251		
Date started:	6/18/24	Starting Batch Weight:	6,380.0 lbs
Date Complete	6/21/24	Ending Batch Weight:	90.0 lbs
		Residue / Oil Weight:	386.0 lbs*
		Total weight destroyed:	5,904.0 lbs.

*Product not destroyed by Plascon
To be disposed of separately

I certify that A-Gas is in possession of and operates a licensed plasma arc destruction facility, and it operates in accordance with the Destruction and Removal Efficiency and emission guidelines set forth in the Montreal Protocol Technology Assessment Panel (TEAP), Task Force for Destruction Technologies, final report dated April 2002. Based upon testing of the technology in April 12,2022 and April 13, 2022 the destruction guidelines achieved are certified to be met or exceed TEAP requirements:

The sample was analyzed by GC/MS to identify the compounds present. The sample was analyzed by GC/FID to quantify the amount of each compound present. The sample contains R-11: 98.21%, R-113: 0.90%, R-134a: 0.45%, R-123: 0.22%, R-12: 0.16%, R-21: 0.02%, R-22: 0.02%, R-10: 0.01%.

I certify that to the best of my knowledge, the above described material was destroyed in compliance with all applicable laws, regulations, permits, and licenses during the period listed above.

Signature: Zachary Babb Date: 6/21/2024

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CERTIFICATE OF DESTRUCTION

Developer of ODS Destroyed	Tradewater	Generator	Tradewater
	650 Morse Ave	Name	N/A
	Elk Grove Village IL, 60007		
Certificate ID/PO#:	Plas- 1252	Manifest #:	N/A
		Destruction Unit :	PDU 2
Generator EPA ID:	N/A	Container ID#:	5001

The following Quantity of mixed Ozone Depleting Substances were destroyed:

Profile ID/Description:	Tradewater		
Batch Number:	Plas- 1252		
Date started:	6/20/24	Starting Batch Weight:	13,610.0 lbs
Date Complete	6/28/24	Ending Batch Weight:	130.0 lbs
		Residue / Oil Weight:	0.0 lbs*
		Total weight destroyed:	13,480.0 lbs.

*Product not destroyed by Plascon
To be disposed of separately

I certify that A-Gas is in possession of and operates a licensed plasma arc destruction facility, and it operates in accordance with the Destruction and Removal Efficiency and emission guidelines set forth in the Montreal Protocol Technology Assessment Panel (TEAP), Task Force for Destruction Technologies, final report dated April 2002. Based upon testing of the technology in April 12,2022 and April 13, 2022 the destruction guidelines achieved are certified to be met or exceed TEAP requirements:

The sample was analyzed by GC/MS to identify the compounds present. The sample was analyzed by GC/FID to quantify the amount of each compound present. The sample contains R-22: 77.21%, R-115: 19.43%, R-12: 0.89%, R-134a: 0.80%, R-11: 0.65%, R-125: 0.30%, R-124: 0.11%, R-113: 0.09%, R-143a: 0.08%, R-114: 0.06%, R-123: 0.04%, R-142b: 0.04%, R-152a: 0.03%, R-32: 0.27%.

I certify that to the best of my knowledge, the above described material was destroyed in compliance with all applicable laws, regulations, permits, and licenses during the period listed above.

Signature: Zachary Babb Date: 6/28/2024