

A-Gas – South Korea 1

April 14, 2023



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A. PROJECT OVERVIEW

A1. PROJECT TITLE

A-Gas – South Korea 1

A2. PROJECT TYPE

ODS Destruction

A3. PROOF OF PROJECT ELIGIBILITY

Demonstrate, with reference to the American Carbon Registry Standard and relevant ACR sector standard if applicable, that the project activity is eligible.

Criterion	Requirement	Proof of Project Eligibility
Start Date	Non-AFOLU Projects must be validated within 2 years of the project Start Date.	Project Start Date of November 1, 2022.
Minimum Project Term	The Minimum Project Term for specific project types is specified in the relevant ACR sector standard and/or methodology. Project types with no risk of reversal subsequent to crediting have no required Minimum Project Term.	There is no risk of reversal for this project type.
Crediting Period	The crediting period for non-AFOLU projects is 10 years.	The crediting period is 10 years.
Real	GHG reductions and removals shall exist prior to issuance. ACR will not forward issue nor forward register a projected stream of future offsets.	GHG reductions take place upon destruction of the chlorofluorocarbons (CFCs) included in the project. Destruction occurs prior to issuance.

Emission or Removal Origin	Project Proponent shall own, have control, or document effective control over the GHG sources/sinks from which the emissions reductions or removals originate. If the Project Proponent does not own or control the GHG sources or sinks, the Proponent shall document that effective control exists over the GHG sources and/or sinks from which the reductions/removals originate.	A-Gas holds and retains title to the CFC refrigerant from acquisition through destruction.
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.	A-Gas has provided documentation of undisputed title to all offsets. Title to offsets is clear, unique, and uncontested.
Land Title	For U.S. projects, Project Proponent shall provide documentation of clear, unique, and uncontested land title. For international projects, Proponent shall provide documentation and/or attestation of land title; ACR may require a legal review by an expert in local law. Land title may be held by a person or entity other than the Project Proponent, provided the Project Proponent has clear, unique, and uncontested offsets title.	Not applicable for this project type.

Additional	<p>Every project shall use either an ACR-approved performance standard and pass a regulatory surplus test 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.</p>	<p>This project passes the ACR-approved regulatory surplus test, as well as the performance standard evaluation.</p> <p><i>Regulatory Surplus Test:</i> There is no law, regulation, or legally binding mandate for the destruction of ODS sourced in South Korea.</p> <p><i>Practice--Based Performance Standard:</i> In a business-as-usual scenario, the ODS refrigerant destroyed in this project would have been fugitively emitted into the atmosphere. All other requirements of the methodology have been met and therefore the project passes the performance standard evaluation.</p>
Regulatory Compliance	<p>Projects must maintain material regulatory compliance. To maintain material regulatory compliance, a project must complete all regulatory requirements at required intervals. Project Proponents are required to provide a regulatory compliance attestation to a verification body at each verification. This attestation must disclose all violations or other instances of noncompliance with laws, regulations, or other legally-binding mandates directly related to project activities.</p>	<p>This project maintains regulatory compliance throughout the entire reporting period.</p>

General Eligibility	Offset projects that use this Methodology must: A. Collect and destroy ODS that meet the eligibility requirements set forth in Section 2.2.1; B. Destroy the recovered ODS pursuant to subchapter 2.1 of the Methodology; C. Conform with the source documentation requirements, as specified in chapter 6 of this Methodology; and D. Conform to the chain of custody documentation requirements, as specified in chapter 6 of the Methodology.	<p>A. The ODS refrigerant, CFC-12, used in this project meets the eligibility requirements for the collection and destruction of ODS.</p> <p>B. The destruction for this project takes place at a TEAP certified destruction facility.</p> <p>C. This project conforms with the monitoring requirements throughout the entirety of the project.</p> <p>D. This project conforms to the chain of custody requirements.</p>
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 for this project type.

<p>Net of Leakage</p>	<p>ACR requires Project Proponents to assess, account for, and mitigate certain types of leakage, as summarized in relevant sector standards and approved methodologies. Project Proponents must deduct leakage that reduces the GHG emissions reduction and/or removal benefit of a project more than any applicable threshold specified in the methodology.</p>	<p>Leakage is not applicable to this project type.</p>
<p>Independently Validated & Verified</p>	<p>ACR requires third-party validation and verification, by an ACR-approved Validation/Verification Body (VVB), at specified intervals to issue ERTs. Governing documents for validation and verification are the ACR Standard, relevant sector standard, relevant methodology, and the ACR Validation and Verification Guideline.</p>	<p>This project will be validated and verified by a third-party, ACR-approved VVB in accordance with the ACR Standard.</p>

<p>Community & Environmental Impacts</p>	<p>ACR requires community and environmental impacts to be net positive overall. Project Proponents shall document in the GHG Project Plan a mitigation plan for any foreseen negative community or environmental impacts and shall disclose in their Annual Attestations any negative environmental or community impacts or claims of negative environmental and community impacts.</p>	<p>There are no negative community or environmental impacts for this project type.</p>
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A3. LOCATION

Wood County, Bowling Green, Ohio USA Latitude: 41.391640 Longitude: -83.671193



This is the location of the destruction facility for the project. CFCs destroyed in this project were sourced in South Korea.

A4. BRIEF SUMMARY OF PROJECT

A-Gas US Inc's voluntary emissions reduction project, A-Gas – South Korea 1, involves the acquisition and destruction of the ozone depleting substance (ODS) CFC-12. The CFC destroyed in the project was collected from a refrigerant and reclamation facility in South Korea. CFC-12 has historically been used in domestic refrigeration systems, liquid chillers, dehumidifiers, and other appliances. This material was transported from South Korea to the final destination of A-Gas US Inc., located in Bowling Green, Ohio.

In its Bowling Green facility, A-Gas operates an argon plasma arc destruction facility that exceeds the Montreal Protocol's Technology and Economic Assessment Panel (TEAP) requirements for refrigerant destruction.

Although ODS refrigerant production and importation for non-critical use is banned globally by the Montreal Protocol, CFCs that were produced or imported prior to Montreal Protocol phase out dates are commonly used in many areas of the world today. South Korea does not mandate ODS destruction and does not control its use. The CFC-12 material has been approved by the Ministry of Trade, Industry and Energy in South Korea to be exported to the USA for destruction purposes.

Project purpose(s) and objective(s)

The purpose and objective of the project is to eliminate carbon dioxide equivalent emissions that would occur from the continued use of CFC refrigerants. The project accomplishes this objective through the destruction of CFC-12, utilizing TEAP approved plasma arc destruction technology, owned and operated by A-Gas at its' Bowling Green, Ohio facility.

A5. PROJECT ACTION

Description of prior physical conditions

Prior to project implementation, the refrigerant destroyed in this project was aggregated at [REDACTED] [REDACTED] Because South Korea does not control the use of CFC-12 or require destruction, the refrigerant would have been fugitively released through consumptive use or in storage awaiting use.

Description of how the project will achieve GHG reductions and/or removal enhancements

The project achieves GHG emissions reductions through destruction of CFC-12 refrigerant. Destruction prevents future emissions of the gas which would occur through fugitive release or intentional venting.

Description of project technologies, products, services and expected level of activity

The ODS refrigerant for this project was sourced in South Korea, acquired by A-Gas, and imported into the U.S. for destruction in Bowling Green, Ohio at our A-Gas US, Inc. facility. The CFC-12 material was shipped in U.S. Department of Transportation approved containers from [REDACTED] to New York, USA, which was arranged through an importer booking system. Once arrived in the port of New York, USA, the CFC-12 material was transported to the A-Gas US, Inc – Ohio facility via freight transport. All freight companies used by A-Gas are registered under the U.S. Department of Transportation's Pipeline & Hazardous Materials Safety Administration and meet the U.S. Department of Transportation's requirements to transport and handling of ODS material.

Upon arrival at the destruction facility, the CFCs were downloaded into a bulk tank where they were then fed through the plasma arc destruction unit, using a lock out tag out system, to destroy the ODS material. This system ensures that our operations team feeds the material from the bulk tank into the correct destruction unit by having the operating personnel physically unlock the destruction unit feed

lines. At this stage, refrigerant is conveyed to the destruction unit and the destruction activity commences.

Because A-Gas does not have a Resource Conservation and Recovery Act (RCRA) permit, the facility complies with TEAP requirements for refrigerant destruction and undergoes certification to these requirements every three years. All TEAP requirements are met throughout the course of each destruction event.

A6. EX ANTE OFFSET PROJECTION

List estimated GHG emission reductions and removal enhancements by year, stated in metric tons of CO₂e.

Emissions reductions are calculated, per methodology requirements, for the 10-year crediting period in the first and only reporting period for the project. The total emissions reductions for the reporting period are 88,945 tCO₂e.

Project	Location	Vintage	Total ERTs
A-Gas – South Korea 1	North America	2022	88,945 tCO ₂ e

A7. PARTIES

Project Proponent: A-Gas

Contact Information:

Name: Briana Reinke

Title: Environmental Services Project Developer

Company: A-Gas

Address: 1100 Haskins Road, Bowling Green, Ohio 43402 USA

Email: Briana.Reinke@agas.com

Website: www.agas.com

Name: Eric Ripley

Title: Global Carbon Director

Company: A-Gas

Address: 1100 Haskins Road, Bowling Green, Ohio 43402 USA

Email: eric.ripley@agas.com

Website: www.agas.com

Project Participant: Refrigeration Mechanics Inc

Role: 3rd party mixing and sampling

B.

METHODOLOGY

B1. APPROVED METHODOLOGY

A-Gas – South Korea 1 has been developed, validated, and verified per the requirements in the Methodology for the Quantification, Monitoring, Reporting and Verification of Greenhouse Gas Emissions Reductions and Removals from the Destruction of Ozone Depleting Substances from International Sources Version 1.0.

B2. METHODOLOGY JUSTIFICATION

The methodology is applicable to A-Gas – South Korea 1 as the CFCs destroyed in the project were sourced in South Korea. There is no requirement in South Korea or the United States mandating that CFC-12 refrigerant be destroyed. Since these CFCs are banned from production and import for use, the destruction of this ODS material did not trigger the production of new CFCs.

In addition to the above, the destroyed CFC-12 is considered as an eligible source within the Methodology's subchapter of 2.2.1. Eligible ODS material destroyed in this project was not combined within the same container and only destruction of eligible ODS was accounted for when calculating Emission Reduction Tonnes (ERTs). The destruction of this project's ODS took place under a single Certificate of Destruction (COD) that is solely correlated to and has been provided for A-Gas – South Korea 1. All ODS material destroyed in this project originated from a single point of origin and was handled strictly by qualified technicians.

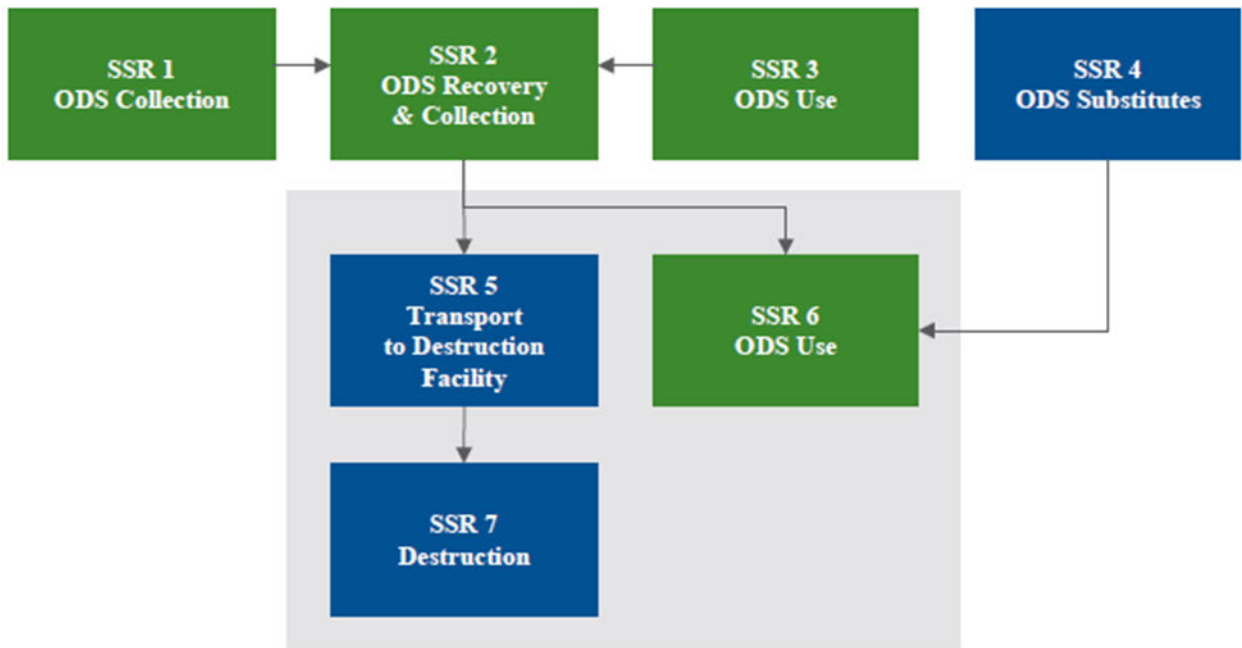
A-Gas – South Korea 1 abides by the Methodology's general monitoring requirements, instrument QA/QC, and document retention. All project activities have been monitored to ensure compliance throughout the entirety of the project. Documentation regarding the original owner and location of the ODS has been provided by and maintained by the project proponent. All destruction activities have been collected and maintained throughout the entirety of the project and relevant documents have been provided to the necessary parties. Since the ODS in this project was sourced in South Korea and destroyed in the United States, additional legal documentation has been collected and provided to ensure that A-Gas had the right to import the ODS and destroy it, providing an end-of-life solution. All scales used for A-Gas – South Korea 1 are inspected and calibrated accordingly on a quarterly basis, and relevant documentation has been provided by the project proponent to the necessary parties. Any and all documentation relevant to A-Gas – South Korea 1 is to be kept and maintained by the project proponent beyond the crediting period of the project.

B3. PROJECT BOUNDARIES

Physical Boundary:

The Methodology dictates the physical boundary for the project and this boundary is inclusive of emissions quantified from ODS transportation, ODS use, and ODS destruction. ODS material was sourced from South Korea and transported to the United States via ship, landing in the state of New York. The ODS was then transported to the A-Gas US Inc. – Ohio destruction facility via freight, where the

destruction activities of this project occurred. The geographical depiction of the project boundary is as follows:



The physical address of the point of origin of the project’s ODS material is as follows:

Facility Name:

[REDACTED]

Physical Address:

[REDACTED]

[REDACTED]

[REDACTED]

Temporal Boundary:

All projects, per the Methodology, are required to have a singular reporting period that does not exceed a 12-month period. The start date is the earliest date in which ODS destruction begins as documented on a certificate of destruction. The reporting period for this project is estimated to be 11/1/2022 – 11/16/2022, and the crediting period is 11/1/2022 – 10/31/2032.

B4. IDENTIFICATION OF GHG SOURCES AND SINKS

The below table includes the emission sources, sinks, and reservoirs that are included or excluded from the project boundary and associated emissions quantification:

SSR	SOURCE DESCRIPTION	GAS	INCLUDED (I) OR EXCLUDED (E)
1 ODS Collection	Fossil fuel emissions from the collection and transport of ODS sources.	CO ₂	E
		CH ₄	E
		N ₂ O	E
2 ODS Recovery and Collection	Emissions of ODS from the recovery and collection of ODS at end-of-life or servicing.	ODS	E
		CO ₂	E
	Fossil fuel emissions from the recovery and collection of refrigerant at end-of-life or servicing.	CH ₄	E
		N ₂ O	E
3 ODS Use	Emissions of ODS from equipment use, leaks, and servicing.	ODS	E
		CO ₂	E
	Fossil fuel emissions from the operation of refrigeration and A/C equipment.	CH ₄	E
		N ₂ O	E
4 Substitute Refrigerant Production	Emissions of substitute refrigerant production.	CO ₂ e	E
		CO ₂	E
	Fossil fuel emissions from the production of substitute refrigerant.	CH ₄	E
		N ₂ O	E
5 Transport to Destruction Facility	Fossil fuel emissions from the vehicular transport of ODS from aggregation point to final destruction facility.	CO ₂	I
		CH ₄	E
		N ₂ O	E
6 ODS Use	Emissions of ODS from use, leaks and servicing through continued operation of equipment.	ODS	I
	Emissions of substitute from use, leaks and servicing through continued operation of equipment.	CO ₂ e	I
	Indirect emissions from grid-delivered electricity.	CO ₂	E
		CH ₄	E
		N ₂ O	E
7 Destruction	Emissions of ODS from incomplete destruction at destruction facility.	ODS	I
	Emissions from oxidation of carbon contained in destroyed ODS.	CO ₂	I
	Fossil fuel emissions from the destruction of ODS at destruction facility.	CO ₂	I
		CH ₄	E
		N ₂ O	E
	Indirect emissions from grid-delivered electricity.	CO ₂	I
		CH ₄	E
		N ₂ O	E

B5. BASELINE

The baseline scenario for this project is the continued use of CFC-12 refrigerant. The following emission rate, required by the Methodology, is assumed under a business-as-usual scenario.

Refrigerant Type	10-Year Cumulative Emissions Rate (%/10 years)
CFC-12	95%

While the production and importation of ODS refrigerant is banned globally, CFC refrigerants are still used in many countries. South Korea allows for continued use of CFC-12 and does not require destruction of this material. Over time, equipment containing refrigerant and storage tanks inevitably leak, causing GHG emissions.

B6. PROJECT SCENARIO

The project scenario is the destruction of CFC-12 refrigerant. The CFC-12 included in this project was sourced in South Korea. The export of this material from South Korea was approved by South Korea's Ministry of Trade, Industry and Energy for destruction purposes. Approval for the importation of ODS material to the US for destruction was granted under South Korea's Ozone Layer Protection Act, as this ensures proper tracking of the CFC refrigerants throughout their life cycle. Although CFC-12 refrigerant is banned from production globally, South Korea does not mandate the destruction of the ODS material and existing CFC refrigerant may still be used or stored. The destruction of this CFC-12 refrigerant will not trigger any additional CFCs to be produced, as less harmful substitutes have been developed.

B7. REDUCTIONS AND ENHANCED REMOVALS

A-Gas – South Korea 1 results in emission reductions through the destruction of CFC-12 refrigerant that would otherwise have been fugitively emitted to the atmosphere. Destruction results in a permanent avoidance of GHG emissions that would have occurred in the absence of the project. Destruction of the CFC-12 refrigerant in this project will not trigger the production of new CFCs.

B8. PERMANENCE

There is no risk of reversal for this project type.

C.

ADDITIONALITY

C1. REGULATORY SURPLUS TEST

A-Gas – South Korea 1 passes the Regulatory Surplus Test, as the destruction of the CFC refrigerant used in this project is not mandated to be destroyed by any law, mandate, ruling, or regulation in the USA or South Korea. Although the production of CFC refrigerants is banned worldwide, these refrigerants are still legally used, and the destruction of this material is not required. South Korea's Ministry of Trade, Industry and Energy has approved the export of the ODS material into the United States and has ensured that they have no mandates requiring the destruction CFCs and that continued use of this material is allowed.

C2. COMMON PRACTICE TEST

The Common Practice Test is not applicable to this project.

C3. IMPLEMENTATION BARRIERS TEST

The Implementation Barriers Test is not applicable to this project.

C4. PERFORMANCE STANDARD TEST

In a conservative business-as-usual scenario, ODS refrigerant is used in existing refrigeration equipment and systems or is stored in tanks for later use. This ODS material will be emitted into the atmosphere, either through fugitive release during use, or inevitable leaking of used equipment, tanks, or systems. All Methodology eligibility requirements have been met by the project and it therefore passes the Performance Standard Evaluation.

D. MONITORING PLAN

D1. MONITORED DATA AND PARAMETERS

List all relevant data and parameters that will be monitored using the table below.

<i>Data or Parameter Monitored</i>	$Q_{\text{refr}, i}$
<i>Unit of Measurement</i>	MT ODS
<i>Description</i>	Total quantity of refrigerant ODS destroyed by the project proponent.
<i>Data Source</i>	Weight tickets are taken before and after each destruction run. Lab analysis is conducted to determine the CFC percentage contained in the gas to be destroyed.
<i>Measurement Methodology</i>	Mass and composition of refrigerant ODS are determined through the procedures found in Appendix B of the Methodology.
<i>Data Uncertainty</i>	Low
<i>Monitoring Frequency</i>	Once for each destruction event included in a project.
<i>Reporting Procedure</i>	<p>Individual cylinders/tanks are weighed on calibrated scales, giving the gross weight. Samples of the gas are taken, and lab analysis is performed to determine the percentage of CFC included in the gas. These values are used to determine the total mass of CFC destroyed in the project.</p> <p>Operational Continuous Emissions Monitoring Systems (CEMs) data confirm the destruction of the ODS refrigerant.</p>
<i>QA/QC Procedure</i>	<p>Scale calibrations are performed on a monthly basis.</p> <p>The lab is contracted with Agilent for annual calibrations and maintenance on all Gas Chromatography (GC) and Gas Chromatography Mass Spectrometry (GC-MS) units used for refrigerant testing.</p>

	Operational Continuous Emission Monitoring Systems (CEMs) data confirm the destruction of the ODS refrigerant.
<i>Notes</i>	N/A

<i>Data or Parameter Monitored</i>	ER _{refr}
<i>Unit of Measurement</i>	%
<i>Description</i>	10-year cumulative emission rate of ODS refrigerant.
<i>Data Source</i>	Appendix A: Table 3 of the Methodology
<i>Measurement Methodology</i>	Not applicable; default value from the methodology
<i>Data Uncertainty</i>	Low
<i>Monitoring Frequency</i>	This is monitored one time per project.
<i>Reporting Procedure</i>	ODS refrigerant total emissions are calculated for the project using Equation 1 from the Methodology
<i>QA/QC Procedure</i>	N/A
<i>Notes</i>	N/A

<i>Data or Parameter Monitored</i>	GWP
<i>Unit of Measurement</i>	
<i>Description</i>	Global warming potential of ODS or HFC.
<i>Data Source</i>	Appendix A: Table 3 of the Methodology
<i>Measurement Methodology</i>	Not applicable; default value from the methodology

<i>Data Uncertainty</i>	Low
<i>Monitoring Frequency</i>	This is monitored one time per project.
<i>Reporting Procedure</i>	N/A
<i>QA/QC Procedure</i>	N/A
<i>Notes</i>	N/A

<i>Data or Parameter Monitored</i>	SE _i
<i>Unit of Measurement</i>	MT CO ₂ e / MT ODS destroyed
<i>Description</i>	Emissions factor for substitute emissions of refrigerant.
<i>Data Source</i>	Appendix A: Table 3 of the Methodology
<i>Measurement Methodology</i>	Not applicable; default value from the methodology
<i>Data Uncertainty</i>	Low
<i>Monitoring Frequency</i>	This is monitored one time per project.
<i>Reporting Procedure</i>	N/A
<i>QA/QC Procedure</i>	N/A
<i>Notes</i>	N/A

<i>Data or Parameter Monitored</i>	Q _{ods}
<i>Unit of Measurement</i>	MT ODS
<i>Description</i>	Total quantity of ODS sent for destruction.
<i>Data Source</i>	Weight tickets are taken before and after ODS destruction occurs. Lab analysis identifies the refrigerant through a mass spectrometer to ensure the refrigerant type and mass within the sample.

<i>Measurement Methodology</i>	Per procedures in Appendix B
<i>Data Uncertainty</i>	Low
<i>Monitoring Frequency</i>	This is monitored once per project.
<i>Reporting Procedure</i>	<p>Cylinders are weighed using regularly calibrated scales.</p> <p>The lab runs a sample analysis to ensure refrigerant type.</p>
<i>QA/QC Procedure</i>	<p>Operations scales are calibrated on a monthly basis.</p> <p>Operational CEMs data is used to ensure the destruction of ODS material.</p> <p>Lab analysis ensures the refrigerant identity, as well as its mass percentage.</p>
<i>Notes</i>	N/A

<i>Data or Parameter Monitored</i>	EF
<i>Unit of Measurement</i>	MT CO ₂ e/ MT ODS
<i>Description</i>	Default emission factor for transportation and destruction of ODS.
<i>Data Source</i>	Methodology equation 5
<i>Measurement Methodology</i>	N/A
<i>Data Uncertainty</i>	Low
<i>Monitoring Frequency</i>	This is monitored once per project.
<i>Reporting Procedure</i>	N/A
<i>QA/QC Procedure</i>	N/A
<i>Notes</i>	Equal to 7.5 MT CO ₂ e per MT of refrigerant.

E.

QUANTIFICATION

E1. BASELINE

Equation 2: Total Baseline Emissions from ODS

$$BE_{refr} = \sum (Q_{refr,i} \times ER_{refr,i} \times GWP_i)$$

$$BE_{refr} = (9.20 \times 95 \times 10,900) = 95,353 \text{ MT CO}_2\text{e}$$

WHERE

UNITS

$BE_{refr,t}$	Total quantity of project baseline emissions from ODS during the reporting period	MT CO ₂ e
$Q_{refr,i}$	Total quantity of refrigerant ODS i sent for destruction	MT ODS
$ER_{refr,i}$	10-year cumulative emission rate of refrigerant ODS i (see Table 3)	%
GWP_i	Global warming potential of ODS i (see Table 3)	MT CO ₂ e / MT ODS

E2. PROJECT SCENARIO

Equation 3: Total Project Emissions

$$PE_t = Sub_{refr} + Tr\&Dest$$

$$PE_t = 6,322 + 86 = 6,408 \text{ MT CO}_2\text{e}$$

WHERE

UNITS

PE_t	Total quantity of project emissions during the reporting period	MT CO ₂ e
Sub_{refr}	Total GHG emissions from substitute refrigerant	MT CO ₂ e
$Tr\&Dest$	Total GHG emissions from transportation and destruction of ODS	MT CO ₂ e

Equation 4: Project Emissions from the Use of Non-ODS Refrigerants

$$Sub_{refr} = \sum Q_{ref,i} \times SE_i$$

$$Sub_{refr} = 9.20 \times 686 = 6311.2 \text{ MT CO}_2\text{e}$$

WHERE

UNITS

Sub_{refr}	Total quantity of refrigerant substitute emissions	MT CO ₂ e
$Q_{refr,i}$	Total quantity of refrigerant ODS i sent for destruction	MT ODS
SE_i	Emission factor for substitute(s) for refrigerant i, per Table 3	MT CO ₂ e / MT ODS destroyed

Equation 5: Project Emissions from Transportation and Destruction Using the Default Emission Factors

$$Tr\&Dest = (Q_{ODS} \times EF)$$

$$Tr\&Dest = 11.52 \times 7.5 = 86 \text{ MT CO}_2\text{e}$$

WHERE		UNITS
Tr&Dest	Total GHG emissions from ODS transportation and destruction, as calculated using default emission factors	MT CO ₂ e
Q _{ods}	Total quantity of ODS sent for destruction in the project	MT ODS
EF	Default emission factor for transportation and destruction of ODS (7.5)	MT CO ₂ e / MT ODS

E3. LEAKAGE

Leakage is not applicable to this project.

E4. UNCERTAINTY

Uncertainty is not applicable for this project type.

E5. REDUCTIONS AND REMOVAL ENHANCEMENTS

Equation 1: Total Emission Reductions

$$ER_t = BE_{refr,t} - PE_t$$

$$ER_t = 95,353 - 6,407 = 88,945 \text{ MT CO}_2\text{e}$$

WHERE		UNITS
ER _t	Total quantity of GHG emission reductions during the reporting period	MT CO ₂ e
BE _{refr,t}	Total quantity of project baseline emissions from ODS during the reporting period	MT CO ₂ e
PE _t	Total quantity of project emissions during the reporting period	MT CO ₂ e

E6. EX-ANTE ESTIMATION METHODS

Ex-ante estimations are not applicable for this project type, as the first reporting period for this project determines the GHG emissions reductions for the 10-year crediting period.

F. COMMUNITY & ENVIRONMENTAL IMPACTS

F1. NET POSITIVE IMPACTS

This project provides net positive impacts to the environment through the reduction of CFC emissions. Without the project, CFC refrigerant that was destroyed would have inevitably been emitted to the atmosphere through leaks and venting caused by use, or the eventual degradation of service or storage tanks. Because the production of CFCs has been phased out, this project will not trigger additional CFCs to be produced. Additionally, the project has co-benefits for land-based carbon sinks as the elimination of CFC emissions contributes to the protection and recovery of the ozone layer, in addition to GHG emission reductions, with resultant minimization of harmful ultraviolet radiation.

This project contributes to the United Nations Sustainable Development Goals as follows:

SDG 9 – Industry, Innovation, and Infrastructure – The project fosters resilient infrastructure, sustainability in the refrigerant management industry, and innovation through the acquisition and destruction of CFC refrigerant, eliminating emissions of CFCs.

SDG 11-Sustainable Cities and Communities – The project contributes to the transition from higher GWP refrigerant to lower GWP alternatives through the elimination of CFCs used in appliances and refrigeration equipment in the built environment.

SDG 12 – Responsible Consumption and Production - Goal 12 is promoted by providing an end-of-life solution for CFC refrigerants contributing to the avoidance of emissions from continued use and alternate disposal methods as well as supporting the transition to lower GWP alternatives.

SDG 13 – Climate Action - The project is conducted as a high impact activity to combat climate change.

SDG15 – Life on Land – The elimination of CFCs contributes to the protection and recovery of the ozone layer, in addition to significant GHG emission reductions. Harmful ultraviolet radiation has negative impacts on terrestrial carbon sinks and these impacts are minimized through the elimination of ODS such as CFC-12.

A-Gas, as a company, strives to nurture the Sustainable Development Goals to work towards a better future for all.

F2. STAKEHOLDER COMMENTS

No stakeholder consultations were required to implement this project. The CFCs acquired by A-Gas were obtained from a private company located in South Korea and all required approvals and regulatory requirements were followed in project implementation.

G.

OWNERSHIP AND TITLE

G1. PROOF OF TITLE

A-Gas US, Inc. is the project proponent and owns the ODS refrigerant destroyed in the project. A-Gas holds title to all emission attributes associated with ODS destroyed by A-Gas.

G2. CHAIN OF CUSTODY

This is not applicable for the project.

G3. PRIOR APPLICATION

A-Gas has not registered through any other greenhouse gas emissions trading program.

H.

PROJECT TIMELINE

H1. START DATE

The reporting period start date for this project is November 1, 2022. This is the date that CFCs were first destroyed as part of project activities and therefore represents the start date per the Methodology.

H2. PROJECT TIMELINE

Initiation of project activities: November 1, 2022

Project term: November 1, 2022 – November 16, 2022

Crediting period: November 1, 2022 – October 31, 2032

Frequency of monitoring, reporting and verification: Once per reporting period.