



RUBY CANYON ENVIRONMENTAL

## Validation and Verification Report

### ACR583 A-Gas V2

December 21, 2020

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# 1 INTRODUCTION

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A-Gas contracted with Ruby Canyon Environmental, Inc. (RCE) to perform the validation and verification of the ACR583 A-Gas V2 project (Project) for the reporting period of December 5, 2019 through August 27, 2020 under the American Carbon Registry (ACR) program. This report is documentation of validation and verification activities that RCE performed for the Project located in Bowling Green, Ohio. For the validation, RCE reviewed the project information as described in the Project Plan “A-Gas V2” dated December 18, 2020. For the verification, RCE ensured that the GHG assertion was materially correct, that the data provided to RCE was well documented, and that if A-Gas made any material errors, that these errors were corrected.

## 1.1 PROJECT BACKGROUND

The Project utilizes reclaimed R-134a from medical dose inhalers (MDIs) purchased from an MDI supplier to charge or recharge refrigeration or air conditioning equipment in order to avoid the future production and use of virgin HFCs. A-Gas’s Shredder extracts the medicine and R-134a from the MDIs, which is then sent to their Distillation Towers to be purified. The Shredder also renders the MDIs useless to avoid any future use. The Distillation Towers extract all R-134a and remove any residual medicine or other impurities creating virgin quality R-134a that can be sold to A-Gas’s HVAC customers.

## 1.2 RESPONSIBLE PARTIES

### Project Developer

A-Gas  
1100 Haskins Road  
Bowling Green, OH 43402  
Sandra Hoffman, Manager Environmental Services  
419-867-8990  
[Sandy.hoffman@aga.com](mailto:Sandy.hoffman@aga.com)

### Validation and Verification Body

Ruby Canyon Environmental, Inc.  
743 Horizon Court, Suite 385  
Grand Junction, CO 81506  
Michael Cote, President  
970-241-9298  
[mcote@rubycanyonenv.com](mailto:mcote@rubycanyonenv.com)

## 1.3 VALIDATION AND VERIFICATION TEAM:

Lead Validator and Verifier: Michael Côté  
Internal Peer Reviewer: Zach Eyler  
Team Members: Garrett Heidrick, Miguel Freyermuth

## 1.4 OBJECTIVES

The objectives of the validation are to evaluate:

- Conformance to the ACR standard and the approved ACR Methodology for Certified Reclaimed HFC Refrigerants (Methodology);
- GHG emissions reduction project planning information and documentation in accordance with the applicable ACR-approved methodology, including the project description, baseline, eligibility criteria, monitoring and reporting procedures, and quality assurance/quality control (QA/QC) procedures;
- Reported GHG baseline, ex ante estimated project emissions and emission reductions/removal enhancements, leakage assessment, and impermanence risk assessment and mitigation (if applicable).

The objectives of the verification are to evaluate:

- The emission reductions and to ensure that the assertion is materially correct;
- The data provided to RCE can be documented and if errors or omissions are detected, they be corrected

## 2 VALIDATION AND VERIFICATION CRITERIA

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### 2.1 VALIDATION AND VERIFICATION STANDARDS, GUIDELINES, AND TOOLS

- A-Gas V2 Project Plan (December 18, 2020)
- A-Gas V2 Monitoring Report v5
- ACR Standard, Version 6.0 (July 2019)
- ACR Validation and Verification Standard Version 1.1 (May 2018)
- Certified Reclaimed HFC Refrigerants, Version 1.1 (September 2018) (Methodology)
- ISO 14064-3:2006 “Greenhouse gases – Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions”

### 2.2 LEVEL OF ASSURANCE

The verification was conducted to a reasonable level of assurance.

### 2.3 MATERIALITY

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

## 3 VALIDATION AND VERIFICATION PROCESS

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### 3.1 VALIDATION/VERIFICATION ACTIVITIES

- RCE completed a COI form on September 22, 2020 to identify any potential conflict of interest with the Project or Project Developer. The COI form was approved by ACR on September 22, 2020.
- RCE and A-Gas held a validation/verification kick-off meeting on September 30, 2020. During the kick-off meeting RCE reviewed the validation/verification objectives and process, reviewed the schedule, and submitted an initial document request.
- RCE performed a strategic review and risk assessment of the received data and support documents to understand the scope and areas of potential risk in the GHG emissions reductions.
- RCE developed a risk-based sampling plan based upon the strategic review and risk assessment. The validation/verification plan and sampling plan were used throughout the process and were revised as needed based upon additional risk assessments.
- RCE performed a virtual site visit to A-Gas's facility in Bowling Green, OH on October 22, 2020. During the site visit RCE performed key personnel interviews and observed the onsite GHG management systems and data gathering, monitoring, and handling practices. RCE met with the following personnel during the virtual site visit:
  - Sandy Hoffman – Manager of Environmental Services, A-Gas.
  - Michelle Gregg—Tower Operator, A-Gas
  - Amber Medina—Lab Technician, A-Gas
- RCE performed a risk-based desktop review of the submitted validation/verification documents. The desktop review included an assessment of the GHG calculation methods and inputs, source data completeness, GHG management and monitoring systems and eligibility documentation.
- RCE submitted requests for corrective actions, additional documentation, and clarifications as necessary to A-Gas throughout the validation/verification.
- RCE's internal peer reviewer conducted a review of the validation/verification sampling, report, and statement.
- RCE issued a final validation/verification report, verification statement, and issues log.
- RCE held an exit meeting with A-Gas.

### 3.2 ELIGIBILITY UNDER THE METHODOLOGY

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

- Project occurs in the United States
- Project is within a sector and segment which has a low adoption rate for the relevant project activity
- Refrigerant must meet the definition of a certified reclaimed HFC refrigerant, which is an "HFC that has been reclaimed by an EPA-certified reclaimer to meet the AHRI 700-2015 Standard for Specifications for Fluorocarbon Refrigerants by an EPA certified reclaimer and tested by an AHRI certified refrigerant testing laboratory to meet the AHRI Standard."

### 3.3 ACR ELIGIBILITY

RCE confirmed the following ACR eligibility criteria listed in the ACR Standard, Version 6.0 by reviewing the project proponent's Project Plan, Monitoring Report, and calculations as well as other support documentation described throughout this report (a full list of documents reviewed is in Appendix A).

- Start Date: the project start date is December 5, 2019.
- Minimum Project Term: projects with no risk of reversal subsequent to crediting have no required minimum project term.
- Crediting Period: the crediting period is ten years as specified by the Methodology.
- Offset Title: RCE confirmed that the project proponent has undisputed title to all offsets. The project proponent purchases MDIs containing R-134a and owns the facility where the R-134a is reclaimed.
- Additional: RCE confirmed that the project is additional as described in Section 5.11.
- Permanent: in the absence of the project virgin R-134a would have been produced and used in HVAC or refrigeration equipment. The project will generate emission reductions that are permanent and have no risk of reversal.
- Net of Leakage: The Methodology specifies that leakage does not need to be considered as it is unlikely that any emissions would occur outside the project boundary.
- Independently Validated and Verified: RCE is a third-party validation and verification body that the project proponent has contracted in order to validate the project.
- Community & Environmental Impacts: RCE reviewed project impacts as described in section 5.12 of this report.

### 3.4 PROJECT BOUNDARY AND TEMPORAL BOUNDARY

According to the Methodology, the physical boundary is defined as the physical and geographical site where the reclaimed HFC refrigerant is produced in the project by a certified refrigerant reclaimer, for use in equipment operations and servicing/recharging to replace refrigerant that leaks or to charge newly manufactured refrigeration or air conditioning equipment. The temporal boundary is the crediting period from December 5, 2019 to August 27, 2020.

### 3.5 PHYSICAL INFRASTRUCTURE, ACTIVITIES, TECHNOLOGIES, AND PROCESSES

The proposed project activity consists of A-Gas's reclamation facility in Bowling Green, OH. A-Gas purchases MDIs containing R-134a and extract and purifies it using a Shredder and Distillation Towers. The finished product meets AHRI 700-2015 Standard for Specification for Fluorocarbon Refrigerants and is sold for use in HVAC and refrigeration equipment. The facility is located at 1100 Haskins Rd. Bowling Green, OH 43402 with GPS coordinates 41.3755, -83.6504.

### 3.6 GHGs, SOURCES AND SINKS WITHIN THE PROJECT BOUNDARY

Table 1 shows the GHG emission sources included in the project boundary based on the Methodology.

**Table 1 – GHG Emission Sources**

| Source            | GHG               | Description  |
|-------------------|-------------------|--|
| Baseline          | CO <sub>2</sub> e | Emissions from the use of virgin HFCs in refrigeration or air conditioning equipment |
| Project Emissions | N/A               | Per the Methodology, Project Emissions are not considered.                           |
| Leakage           | N/A               | Per the Methodology, Leakage is not considered.                                      |

### 3.7 DESCRIPTION OF AND JUSTIFICATION FOR THE BASELINE SCENARIO

The baseline determines the emissions that would occur in the absence of the project. The project action involves the utilization of reclaimed HFC refrigerants to displace the use of virgin HFC refrigerants. GHG emissions are avoided because in the baseline scenario, the virgin HFC refrigerants would have been used to charge or recharge refrigeration or air conditioning equipment causing CO<sub>2</sub>e emissions to be released. Instead, the reclaimed HFC refrigerants are being extracted, cleaned to virgin quality, and re-used, thus avoiding those emissions. The Methodology establishes the baseline scenario as the continued use of virgin HFC refrigerants.

### 3.8 METHODS AND CALCULATIONS FOR GENERATING ESTIMATES OF EMISSIONS AND EMISSION REDUCTIONS/REMOVAL ENHANCEMENTS

The ACR Methodology for Certified Reclaimed HFC Refrigerants lists all equations for the quantification of Baseline and Project Emissions. Baseline emissions are calculated by multiplying the amount of reclaimed HFC used to (re)charge equipment by a specified 10-year loss rate of displaced virgin HFC. Total weight of displaced HFC is then multiplied by the specified Global Warming Potential of the displaced virgin HFC.

### 3.9 PROCESS INFORMATION, SOURCE IDENTIFICATION/COUNTS, AND OPERATION DETAILS

The Project Plan describes operation details of how emission reductions will be achieved and explains how process information is collected and used. RCE confirmed that all relevant SSRs were included in the Project boundary during the site visit.

### 3.10 DATA MANAGEMENT SYSTEMS AND QA/QC PROCEDURES

RCE reviewed Section D of the Project Plan titled ‘Monitored Data and Parameters’ and Section V of the Monitoring Report titled ‘Project Monitoring’. A-Gas included all necessary data parameters and appropriately identified units of measurements, data sources, methodologies, uncertainty, monitoring procedures, QA/QC procedures, and monitoring frequency. The table is transparent for understanding how Project data is recorded.



### 3.11 ADDITIONALITY

ACR requires that every project either pass an approved performance standard and a regulatory additionality test or pass a three-pronged test to demonstrate that the Project Activity is beyond regulatory requirements, beyond common practice, and faces at least one of three implementation barriers (institutional, financial, or technical). A-Gas assessed additionality based on a regulatory surplus test and a performance standard test.

#### 3.11.1 Regulatory Surplus Test

The Regulatory Surplus test involves reviewing whether there is an existing law, regulation, statute, legal ruling, or other regulatory framework in effect as of the project Start Date that mandates the Project Activity or effectively requires the GHG emission reductions. A-Gas completed a review of any laws or regulations that would require the project activity. As of 2020, there were no requirements to reclaim HFCs.

A-Gas is an EPA-certified reclaimer of HFCs. The EPA does not require certified reclaimers to reclaim used HFCs. Additionally, RCE reviewed federal and state requirements for facilities who manage used HFCs and found no evidence that HFCs are required to be reclaimed, therefore, the project passes the regulatory surplus test.

#### 3.11.2 Practiced-Based Performance Standard Test

Per the Methodology, all relevant sectors and segments (Table 1 of Methodology) have a low market adoption rate for using certified reclaimed HFCs. Moreover, current industry information indicates that there are very small quantities of HFCs from MDIs that are being recovered in the United States. Therefore, the project passes the performance standard test.

### 3.12 ENVIRONMENTAL IMPACTS

The project plan includes a comprehensive summary of the project activity's net positive environmental impacts. Reclaiming HFCs avoids the production and use of virgin HFCs and their eventual leakage from HVAC or refrigerant equipment into the atmosphere. There are no negative community or environmental impacts for this project. A-Gas holds all required environmental permits to construct and operate the reclaimed HFC facility.

The validation team confirmed that the project activity is not expected to promote significant negative environmental impacts.

### 3.13 LOCAL STAKEHOLDERS CONSULTATION

Not applicable for this Project.

### 3.14 PROJECT PLAN

The GHG Project Plan is the basis for much of the validation activities. The final version is dated December 18, 2020. RCE confirmed that the Project Plan is based on the currently valid ACR GHG Project Plan template version 1.0 and is completed in accordance with the current ACR Standard Sec. 6.B.

### 3.15 MONITORING PLAN, DATA MANAGEMENT SYSTEMS, QA/QC

The project utilizes the approved ACR Methodology for Certified Reclaimed HFC Refrigerants. RCE confirmed the monitoring plan is in accordance with the monitoring methodology and will provide real measurements of achieved emission reductions. RCE has checked all the parameters presented in the monitoring plan and found no deviations relevant to the project activity against the requirements of the methodology. RCE confirms that the data management and QA/QC procedures described in the monitoring plan are reasonable within the project design, and the implementation of the monitoring plan is enough evidence to ensure the ex-ante emission reductions resulting from the project activity can be reported ex-post and verified.

The project monitors the amount of R-134a that is reclaimed and sold back into the market. A-Gas' scales are calibrated quarterly. This activity is completed by Brechbuhler Scales, Inc and Antibus Scales & Systems. The reclaimed R-134a is analyzed by A-Gas' AHRI 700-certified laboratory to ensure it meets all purity requirements.

The monitoring plan QA/QC procedures to cross check measurement results are in line with the applied methodology.

### 3.16 PROJECT START DATE

During the site visit, RCE confirmed the project start date which was December 5, 2019.

### 3.17 OFFSET TITLE

A-Gas owns the facility where the reclamation takes place. A-Gas purchases discarded MDIs from an MDI supplier. A-Gas reclaims the R-134a and sells it directly to end customers or through distributors. The reclaimed R-134a changes possession once it is sold or transferred to a distributor, wholesaler, service technician, or end-user. All HFC transactions are described by A-Gas' invoices. A-Gas retains all legal claims to the environmental attributes and GHG benefits of its processes and the avoidance of the production of virgin HFC refrigerants. A-Gas holds full ownership of the project facility and its corresponding environmental attributes.

### 3.18 GHG ASSERTION

RCE reviewed the GHG assertion calculation as well as supporting documentation for the assertion. The calculations were confirmed to be accurate and commensurate with their reported GHG equations and methods.

### 3.18.1 Baseline Emissions

Baseline emissions include the emissions that would take place without the use of certified reclaimed HFCs. It is equal to the total amount of reclaimed HFC refrigerant produced and the subsequent sale, title transfer or return to a refrigerant distributor, refrigerant wholesaler, or an end-user for use in refrigeration or air conditioning equipment during the reporting period. In the absence of the project, most of the refrigerant used to recharge the system would have come from virgin HFC production, and some would come from the HFCs that would normally be reclaimed.

### 3.18.2 Project Emissions

In this Methodology, any project related emissions from using reclaimed refrigerant, for example, from transport of certified reclaimed HFCs, are considered negligible and outside the project boundary. Thus, project activity emissions can be disregarded.

### 3.18.3 Emissions Reductions

RCE re-calculated emissions reductions for the reporting period according to the Methodology and found the assertion to be free of material misstatement.

### 3.18.4 Permanence

The emissions reductions from the use of certified reclaimed HFC refrigerants can be deemed as permanent because they displace the production and use of virgin HFCs.

## 4 VALIDATION AND VERIFICATION FINDINGS

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RCE developed one issues log for both the validation and verification notifying the Project Developer of corrective action requests (CARs), additional documentation requests (ADRs), and clarifications (CRs). A-Gas responded to all issues appropriately. The issues log and responses can be found in Appendix B.

## 5 VALIDATION AND VERIFICATION CONCLUSION

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The validation of the A-Gas V2 project was completed in a manner consistent with ISO 14064-3:2006 and was found in conformance to the ACR Standard, Version 6.0 and the ACR Methodology for Certified Reclaimed HFC Refrigerants including the A-Gas V2 Project Plan (December 18, 2020), baseline, additionality, monitoring and reporting procedures, and quality assurance/quality control (QA/QC) procedures; reduction/removal enhancements, leakage assessment, and impermanence risk assessment and mitigation.

The verification of the Project for the reporting period December 5, 2019 to August 27, 2020 was completed in a manner consistent with ISO 14064-3:2006 and in conformance with ACR standards, Methodology and guidelines. The table below is a summary of the emissions reductions.

**Table 2. A-Gas V2 Emissions Reductions.**

| Vintage      | Baseline Emissions<br>(MTCO <sub>2</sub> e) | Project Emissions<br>(MTCO <sub>2</sub> e) | Emission Reductions<br>(MTCO <sub>2</sub> e) |
|--------------|---|--|--|
| 2019         | 1,182                                       | N/A  | 1,182  |
| 2020         | 21,863                                      | N/A  | 21,863                                       |
| <b>TOTAL</b> | <b>23,045</b>                               | <b>N/A</b>                                 | <b>23,045</b>                                |



Michael Coté, Lead Validator



Zach Eyler, Internal Peer Reviewer

## 6 APPENDIX A—DOCUMENTS REVIEWED

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1. Scale Calibrations
2. 2020 EPA equipment list
3. A-Gas regulatory compliance attestation
4. A-Gas V2 Project Plan
5. A-Gas V2 Monitoring Report
6. A-Gas V2 Listing Form
7. Sales documentation
8. Purchase documentation
9. AHRI 700 tests for all HFCs sold
10. MDI process overview

## 7 APPENDIX B—ISSUES LOG AND RESPONSES

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| Corrective Action Request, Additional Documentation Request, or Clarification Request ID# | Finding   | Section of Standard v.6.0 (S) or Methodology (M) | Offset Material Misstatement (OMM) or Conformance (C) | OPO/APD response   | RCE response   | Additional OPO/APD response   | Additional RCE response  |                                   | Open or Closed |
|---|---|--|---|--|--|---|--|-----------------------------------|----------------|
| CAR 1   | Reporting period begins on the date the initial volume of certified reclaimed HFC is sold. A-Gas lists 11/1/19 as the start, but first sold HFC is 12/18/19.  | M 1.3  | C   | Updated  | Start date updated to 12/5/19  |   |  |                                   | Closed         |
| CAR 2   | Please address the following in the Project Plan:<br>-Section A2: Add "Industrial Process Emissions"<br>-Section A3: Update project start date.<br>-Section A5: Needs to be more descriptive with three sections "Description of Project Activity," "Background Information," and "Project Purpose(s) and Objective(s)."<br>-Section A6: Needs to be more descriptive (i.e. elaborate on the MDI gas separation process, the technology of the towers, the scales type employed, etc.).<br>-Section A7: Round down Emission Reductions (ER) to the nearest whole number.<br>-Section B3: Update start date.<br>-Section D1: Description row: Content must describe the parameter and not the project.<br>-Section E1: Baseline emissions are listed as 44,012 CO2e. This is the weight in pounds of HFC reclaimed.<br>-Section E2: Following the word <i>disregarded</i> , remove the content.<br>-Section E5: Provide an example of calculation.<br>-Section E6: Need to describe how A-Gas Arrived at tonnes of CO2e in Section A7. Ex ante and ex post ER are the same for the this Methodology.<br>-Section H1: Update start date. Remove italics.<br>-Section H2: Update dates on: "Initiation of Project Activities," "Project Term," and "Crediting Period."<br>-Check for "A-Gas V1" in the A-Gas V2 report | S 6.0 and Project Plan Instructions              | C   | Updated, version 2 uploaded to the Dropbox   | Project Plan:<br>-Section A2: Added.<br>-Section A3: Updated.<br>-Section A5: Correct. Remove bold text from "Description of Project Activity."<br>-Section A6: Not meeting Project Plan Template requirements.<br>-Section A7: Corrected<br>-Section B3: Updated<br>-Section D1: Updated<br>-Section E1: BE <sub>HFC23</sub> is the baseline emissions during the reporting period.<br>-Section E2: Updated.<br>-Section E5: Missing. Needs to be included and have the calculation showing how A-Gas arrived at total emissions reductions.<br>-Section E6: Not addressed.<br>-Section H1: Not addressed.<br>-Section H2: Project term is listed as 12/5/19 to 8/27/20, earlier in the document the term ends 8/28/20. Please clarify which end date is correct. | Corrected formatting<br>Updated E1<br>Updated E5<br>Addressed E6<br>Addressed H1<br>Corrected H2  | Project Plan:<br>-Section A5: Bold removed.<br>-Section A6: Updated. More closely aligns with other ACR projects.<br>-Section E1: Corrected.<br>-Section E5: Updated.<br>-Section E6: Add 2020 to vintage column.<br>-Section H1: Corrected.<br>-Section H2: Corrected.  | Updated E6<br>Uploaded to dropbox | Closed         |
| CAR 3   | Please address the following issues in the Monitoring Report:<br>-Remove the instructions.<br>-Project Start Date is listed as September 30, 2020.<br>-Section III.1: A-Gas must state the total GHG reductions/removals during the RP.<br>-Section III.2: Program of Activities Project Implementation does not apply to A-Gas.<br>-Section V. In general, provide a detail about the process and how the activity data is measured, what is the sampling method to take a representative samples.<br>-Section V.2: "Describe the internal audit..." refers to how A-Gas double checks their data to make sure there are no errors.<br>-Section VI.1: A-Gas must provide the Baseline Emissions calculations.<br>-Section VI.5: A-Gas must provide a summary calculation showing net GHG emission reductions.<br>-Section VII.1: State project is undergoing a full site visit verification. Provide date of the Site Visit and that it was virtual. RCE verification services outside the Project are irrelevant.   | S 6.0 and Monitoring Report Instructions         | C   | Updated, version 2 uploaded to the Dropbox   | Monitoring Report:<br>-Instructions removed.<br>-Start date is updated.<br>-As stated in CAR 2, the reporting period has two different ending dates, 8/27/20 or 8/28/20. Please clarify which is correct.<br>-Section III.1: Added. Please add units for GHG reductions.<br>-Section III.2: Corrected<br>-Section V.2: "Description of internal audit..." not met. Please describe A-Gas's QA/QC procedures for the project.<br>-Section VI.1: Baseline Emissions mislabeled as "Emission Reductions."<br>-Section VI.5: Net GHG emission reductions is Equation 2 in protocol.<br>-Section VII.1: Updated.  | Updated units<br>Updated with internal audit description<br>Baseline Emissions is not mislabeled as this the calculation tool that ACR provided that I did not edit beyond adding the rounded column. These are ACR headings<br>Updated with equation 2 | Monitoring Report:<br>-Ending date has been clarified to be August 28, 2020.<br>-Section III.1: Units added.<br>-Section V.2: Added.<br>-Section VI.1: The Monitoring Report Instructions state that you must provide a summary documenting baseline emissions.<br>-Section VI.5: Updated with correct equation. | Corrected and uploaded to dropbox | Closed         |
| CAR 4   | N/A must be entered for the following sections in the Monitoring Report:<br>-III.2<br>-IV.1<br>-IV.2<br>-IV.3<br>-VI.2<br>-VI.3   | Monitoring Report Instructions                   | C   | Updated, version 2 uploaded  | All corrected.   |   |  |                                   | Closed         |
| CAR 5   | Please provide the annual attestation forms:<br>1) ACR attestation<br>2) Regulatory surplus attestation<br>3) Regulatory compliance attestation   | S 8.B  | C   | Uploaded to the Dropbox  | 1) Provided.<br>Need 2 and 3   | uploaded to dropbox   | Please put attestations on A-Gas letterhead and include your signature.  | Uploaded to dropbox               | Closed         |
| CAR 6   | In "A-Gas V2 RP Calc_Data Summary" column F "R134a Weight" uses a default number of 0.286 that is then multiplied by the "Total Weight" in column E. This default value is causing an over estimation in R134a weight.  | M 4  | C   |  |  | corrected   | Weights are corrected.   |                                   | Closed         |
| ADR 1   | Please provide documentation that A-Gas is an EPA-certified reclaimer and provide the most recent equipment list provided to the EPA.   | M 5.2  | C   | Most up to date Certification and list uploaded to the Dropbox. "EPA Reclaimer Certification" & "List of Reclamation and Analytical Equipment"   | Provided.  |   |  |                                   | Closed         |
| ADR 2   | RCE was provided an excel sheet " <a href="#">A-Gas V1 RP data.xlsx</a> " Please provide this for V2.   | S 5.0  | C   | A-Gas V2 RP Calc_Data Summary workbook has been uploaded to the dropbox  | Provided.  |   |  |                                   | Closed         |
| ADR 3   | Leakage detection protocol:<br>On the virtual site visit, it was discovered that the shredder could be one of the riskiest zones of the HFC leakages. RCE wants to ensure that there is a well-documented procedure to avoid any possible R-134a leaks from the shredder and other equipment, tanks, fittings and instruments within the physical boundaries of the Project.  | S 5.0  | C   | The "Monthly Shredder Unit Inspection" Form has been uploaded and this is what is used to ensure the integrity of the connections to the Shredder. This is the preventative maintenance to avoid leaks. Also provided is pressure testing the shredder prior to running and pulling the equipment into a vacuum. File labeled "Shredder_vacuum pump line" If a vacuum is unable to be pulled or the inability to pressure test, then all shredder connections/valves are rechecked for integrity, closures, and leaks. | Provided.  |   |  |                                   | Closed         |
| ADR 4   | Leakage detection tests:<br>To complement the ADR 2, please provide the leakage test reports concerning the Reporting Period (RP).  | S 5.0  | C   | There are no local, state, or federal requirements to retain or provide A-Gas internal leak testing reports.   | Acceptable response.   |   |  |                                   | Closed         |
| ADR 5   | A Gas Chromatography Result from the R-134a:<br>As a sample, please provide just a single representative test run and a brief description, preferably a recent one or within the RP.  | S 5.0  | C   | An example of a HFC-134a Gas Chromatography report has been uploaded to the dropbox "4003- 7890B GC#2(F)"  | Provided.  |   |  |                                   | Closed         |
| ADR 6   | Provide evidence that there is no existing Law or Regulation that mandates the Project.   | M 3.2.1  | C   | A-Gas has developed A-Gas V2 voluntarily and there are no local, state, or federal standards, regulations, or laws mandating the production of this project.   | See CAR 5 for response.  | uploaded to dropbox   | Provided.  |                                   | Closed         |
| CR 1  | Please clarify why the weight of purchased 134a from the mdi supplier is less than weight sold to A-Gas's HVAC customers. Please provide any missing invoices if that is the case.  | M 4.1  | C   | This was a misinterpretation by A-Gas and has been corrected   | Provided new sales and origin documentation. There is a new finding regarding this, please see CAR 6.  | Corrected volumes and removed Haun Welding and Mace Security  | Weights are corrected.   |                                   | Closed         |