



RUBY CANYON ENVIRONMENTAL

Validation and Verification Report

ACR830 Advanced Refrigeration – ARS2021002

March 20, 2023

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1 INTRODUCTION

Therm Solutions, Inc. (Therm) contracted with Ruby Canyon Environmental, Inc. (RCE) to perform the validation and verification of the ACR830 Advanced Refrigeration – ARS2021002 Project (Project) for the reporting period March 1, 2021 to November 8, 2021 and a crediting period of March 1, 2021 to February 28, 2031 under the American Carbon Registry (ACR) program. This report is documentation of validation and verification activities that RCE performed for the Project located in Yonkers, NY; Willmar, MN; Buffalo, MN; and Lincoln Park, NJ. For the validation, RCE reviewed the project information as described in the Project Plan “ACR830 Project Plan” dated March 2023 (Version 6). For the verification, RCE ensured that the GHG assertion was materially correct, that the data provided to RCE was well documented, and that if Therm made any material errors, that these errors were corrected.

1.1 OBJECTIVES

The objectives of the validation are to evaluate:

- Conformance to the ACR standard and the approved ACR Methodology for the Quantification, Monitoring, Reporting, and Verification of Greenhouse Gas Emissions Reductions and Removals from Advanced Refrigeration Systems, Version 2.1, August 2021 (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 emissions reductions/removal enhancements, leakage assessment, and impermanence risk assessment and mitigation (if applicable).

The objectives of the verification are to evaluate:

- The emissions 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.

RCE retains all data and documents for seven years after the end of the project reporting period or for the duration required by the GHG program, whichever is longer.

1.2 PROJECT BACKGROUND

The Project involves the installation of low-GWP refrigerants (R-744 and R-290) in large commercial refrigeration systems resulting in the reduction of greenhouse gases (R-22, R-507A, R-407A, R-404A, and R-402A) through the displacement of emissions from standard refrigerant equipment and standard leakage rates. Baseline emissions are calculated using the quantity of refrigerant in baseline system equipment multiplied by the annual amortized emission rate of refrigerant in the baseline system. The Project is located at four third-party properties owned by Stew Leonard’s in Yonkers, New York; Coborn’s located in Willmar and Buffalo, Minnesota; and ShopRite located in Lincoln Park, New Jersey.

1.3 RESPONSIBLE PARTIES

Project Proponent

Therm Solutions Incorporated
170 S Poplar Road
Lake Forest, IL 60045
Olivia Bonnes
720-545-5628

End Use Customer

ShopRite
60 Beaverbrook Road
Lincoln Park, NJ 07035
Keenan Reynolds
732-906-5026

Coborn's and Coborn's Cashwise
1921 Coborn Boulevard
St. Cloud, MN 56301
Nathan Tykwinski
nathan.tykwinski@cobornsinc.com

Stew Leonard's
100 Westport Avenue
Norwalk, CT 06851
Patrick Dentato
914-844-3014

1.4 VALIDATION AND VERIFICATION TEAM

Lead Validator and Verifier: Garrett Heidrick
Team Member: Jessica Stavole
Internal Reviewer: Michael Coté

1.5 VALIDATION AND VERIFICATION CRITERIA

1.5.1 Validation and Verification Standards, Guidelines, and Tools

- ACR830 Advanced Refrigeration – ARS2021002 Project Plan, Version 6 (March 2023)
- ACR830 Advanced Refrigeration – ARS2021002 Monitoring Report
- ACR Standard, Version 7.0 (December 2020)
- ACR Validation and Verification Standard Version 1.1 (May 2018)

- Quantification, Monitoring, Reporting, and Verification of Greenhouse Gas Emissions Reductions and Removals from Advanced Refrigeration Systems, Version 2.1, (August 2021)
- ISO 14064-3:2006 “Greenhouse gases – Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions”

1.5.2 Level of Assurance

The verification was conducted to a reasonable level of assurance.

1.5.3 Materiality

The verification was conducted to ACR’s required materiality threshold of $\pm 5\%$ of the GHG project’s emissions reductions or removal enhancements.

2 VALIDATION AND VERIFICATION PROCESS

As the first step in validation/verification activities, the Verification Team developed a Validation/Verification Plan to be followed throughout the validation and verification. The plan included the following activities:

- RCE completed a COI form on January 13, 2023 to identify any potential conflict of interest with the Project or Project Developer. The COI form was approved by ACR on January 30, 2023. RCE submitted a revised COI on February 21, 2023.
- RCE and Therm held a validation/verification kick-off meeting on January 30, 2023. 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 conducted virtual site visits to all Project locations on 2/16/2023 (Lincoln Park, NJ), 2/17/2023 (Yonkers, NY), and 2/21/2023 (Willmar and Buffalo, MN). During the virtual site visits, RCE observed the new propane or CO₂ systems and confirmed that the old refrigeration systems utilizing the baseline refrigerants had been removed or their connections severed. RCE interviewed key personnel involved in the Project while onsite. RCE met with the following personnel during the site visits:
 - Olivia Bonnes – Director of Operations, Thermcool
 - Adam Shorey – Engineer, Thermcool
 - Keenan Reynolds – Refrigeration Project Specialist, ShopRite
 - Jeff Bufkowski – Field Technician and Project Manager, St. Cloud Refrigeration
 - Steve Eriksson – Facility Manager, Stew Leonard’s
- 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 Therm throughout the validation/verification.
- RCE’s internal reviewer conducted a review of the validation/verification sampling, report, and statement.
- RCE issued a final validation/verification report, verification statement, and List of Findings.
- RCE held an exit meeting with Therm.

3 VALIDATION AND VERIFICATION FINDINGS

3.1 PROJECT BOUNDARY AND ACTIVITIES

RCE reviewed the project boundary and activities and confirmed that both were appropriately identified and described in the Project Plan. The Project activity is the complete replacement of large commercial high-GWP HCFC-based or HFC-based (R-22, R-507A, R-407A, R-404A, and R-402A) refrigeration systems with advanced refrigeration systems with a low-GWP refrigerant (R-744 or R-290) at existing facilities. Coborn’s Buffalo is the only exception to the Project activity, as it was a newly built store and the low-GWP refrigeration system was installed along with the new construction. An HFC or HCFC refrigerant system was never installed at Coborn’s Buffalo.

The Project’s temporal boundary is the reporting period March 1, 2021 to November 8, 2021.

3.2 GHG SOURCES SINKS, AND RESERVOIRS

Table 1 shows the GHG emission sources included in the project boundary based on the Methodology. RCE confirmed that the Project Plan appropriately identifies the offset project boundary and includes all relevant SSRs.

Table 1. GHG Emissions Sources

Source	GHG	Description
SSR 5	HCFCs and Low-GWP refrigerant	Refrigerant leaks from the operation of the refrigeration system in the baseline and the project.
SSR 6	HCFCs and Low-GWP refrigerant	Refrigerant emissions occurring from servicing refrigeration or A/C equipment or system to replace leaked refrigerant.
SSR 7	HCFCs	Emissions from the disposal of the equipment at end-of-life, including destruction of refrigerant.

3.3 ELIGIBILITY

3.3.1 ACR Eligibility

RCE confirmed the following ACR eligibility criteria listed in the ACR Standard, Version 7.0 by reviewing the project proponent’s Project Plan, Monitoring Report, and calculations as well as other supporting documentation described throughout this report (a full list of documents reviewed is in Appendix A).

- **Start Date:** The project start date is March 1, 2021.
- **Crediting Period:** The crediting period is ten years as specified by the Methodology, March 1, 2021 – February 28, 2031.
- **Minimum Project Term:** Projects with no risk of reversal subsequent to crediting have no required minimum project term.
- **Offset Title:** RCE confirmed that the project proponent has undisputed title to all offsets. Therm retains all legal claims to the environmental attributes and GHG benefits of its processes and the avoidance of future leaks into the atmosphere. RCE reviewed Refrigeration Carbon Development Agreements signed by both Therm and ShopRite, Coborn's, and Stew Leonard's.
- **Additional:** RCE confirmed that the project is additional as described in Section 3.4.
- **Permanent:** There is no risk of reversal of GHG removal enhancements for this project type.
- **Net of Leakage:** According to ACR, and per the Methodology, leakage can be disregarded.
- **Independently Validated and Verified:** RCE is a third-party validation and verification body that the project proponent has contracted to validate the project.
- **Community & Environmental Impacts:** RCE reviewed project impacts as described in section 3.6 of this report.

3.3.2 Methodology Eligibility

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

- The Project occurs in the United States. The Project is located at Stew Leonard's 1 Stew Leonard Dr. #1, Yonkers, NY; Coborn's Cash Wise 1300 5th St. SE, Willmar, MN; Coborn's 630 Ryan's Way, Buffalo, MN; and ShopRite 60 Beaverbrook Rd., Lincoln Park, NJ.
- The Project is within a sector and segment which has a low adoption rate for the relevant project activity: large commercial refrigeration.
- HCFCs and HFCs in the original equipment have been recovered and sent to a refrigerant reclaimer or transferred to another grocer in accordance with ACR guidance and the Methodology.
- R-744 and R-290 are acceptable substitutes according to the United States EPA SNAP program for use in commercial refrigeration end-uses and used in accordance with SNAP use conditions.

3.4 ADDITIONALITY

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

3.4.1 Regulatory Additionality Test

No existing laws or regulations mandate the Project activity and as such, the project passes the regulatory additionality test. There are no Federal requirements in the United States that require installation of advanced refrigeration technology. Starting in 2019, several states have introduced legislations that prohibit use of specific refrigerants in specific end-uses; however, none of the states in this Project have any laws that mandate the use of low-GWP refrigerants.

3.4.2 Practiced-Based Performance Standard Test

Per the Methodology, a review of US EPA's GreenChill Partnership program data indicates low market adoption rates for advanced refrigeration technology across all product segments. Project activities within the sectors qualify for offset credit creation under this Methodology.

3.5 PERMANENCE

There is no risk of reversal. Once the refrigeration system is installed with the low-GWP refrigerant the associated GHG reductions are fixed.

3.6 ENVIRONMENTAL AND COMMUNITY IMPACTS

The Project Plan includes a comprehensive summary of the project activity's net positive environmental impacts including the reduction of GHG emissions resulting from transitioning to advanced refrigeration systems. There are no negative community or environmental impacts for this Project. The Project Plan also identifies contributions as aligned with relevant UN Sustainable Development Goals (SDGs) including Goal #9 Industry, Innovation, and Infrastructure; Goal #11 Sustainable Cities and Communities; Goal #12 Responsible Consumption and Production; and Goal #13 Climate Action.

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

3.7 LOCAL STAKEHOLDER CONSULTATION

Not applicable for this Project. The Methodology does not require public consultation from stakeholders.

3.8 BASELINE SCENARIO

The Project's baseline scenario is continued use of high-GWP refrigerant in the operation of large commercial refrigeration systems. By following the Methodology requirements for large commercial refrigeration systems, the Project establishes the annual emission rate of the replaced baseline system as the average of the previous two years (2019 and 2020) of baseline system operation prior to the installation of the advanced refrigeration system. Historical operating records were used to establish quantity of HCFC or HFC recharged to the baseline system. The Project results in the reduction of greenhouse gases (HCFCs or HFCs) through use of low-GWP refrigerants (R-744 or R-290) in large commercial refrigeration systems. RCE confirmed that the Project Plan appropriately identifies the baseline scenario.

3.9 DATA MANAGEMENT SYSTEM AND MONITORING PLAN

RCE reviewed Therm's processes for data collection and management and determined that they were sufficient to meet all ACR and Methodology requirements. The validation/verification team gained an understanding of QA/QC controls put in place through interviews with key personnel, the site visits to the Project locations, and the review of all documentation provided by Therm. A full list of documents reviewed is included as Appendix A.

Therm's Project Plan includes a Monitoring Plan that identifies all monitored data and parameters. RCE confirmed that the monitoring parameters and approaches conform to the methods required by the

Methodology. The plan includes all relevant data parameters and appropriately identifies units of measurements, data sources, methodologies, uncertainty, monitoring frequency and procedures, and QA/QC procedures. The following parameters were tracked:

- $QBR_{j,i}$: Quantity of refrigerant used in baseline system
- $AR_{k,i}$: Quantity of alternative refrigerant used in Project system
- $ERA_{REF,j}$: Annual amortized emission rate of refrigerant j in baseline system (%)
- $ERA_{REF,k}$: Annual emission rate of alternative refrigerant used in Project system (%)
- $GWP_{REF,k}$: GWP of alternative refrigerant used in Project system
- $GWP_{REF,j}$: GWP of baseline refrigerant used in baseline system

After discussions with Therm and review of project documents, RCE determined that the Monitoring Plan accurately reflects how Project data is monitored and recorded. Therm implemented the Monitoring Plan as stated in the Project Plan during Project activities.

3.10 PROJECT DATA AND GHG EMISSIONS REDUCTION ASSERTION

RCE reviewed the Project Plan, Project data, and calculations to ensure that appropriate equations were used in calculating baseline emissions, project emissions, and emissions reductions.

3.10.1 Baseline Emissions

Baseline emissions include the emissions that would have occurred had the Project not installed an advanced refrigeration system. Baseline emissions are calculated using the quantity of refrigerant in baseline system equipment multiplied by the annual amortized emission rate and GWP of the baseline refrigerant. RCE verified that Therm appropriately calculated the annual emission rate of the replaced baseline system as the average of the previous two years (2019 and 2020) of baseline system operation prior to the installation of the advanced refrigeration system. Historical operating records were used to establish quantity of HCFC or HFC recharged to the baseline system.

3.10.2 Project Emissions

Project emissions from alternative refrigerants are calculated by multiplying the charge size of alternative refrigerant (R-744 or R-290) used in the Project system by the appropriate refrigerant substitute annual emission rate and the GWP of the alternative refrigerant.

3.10.3 Emissions Reductions

RCE verified that Therm calculated emissions reductions according to relevant Methodology equations and that the methods are included in the Project Plan.

RCE calculated emissions reductions for the reporting period according to the equations defined in the Methodology and the Project Plan and found the assertion to be free of material misstatement. RCE's calculated ERTs are shown in Table 2.

Table 2. RCE-calculated ERTs

Reporting Period	RCE ERTs (MTCO ₂ e)	Therm ERTs (MTCO ₂ e)
March 1, 2021 – November 8, 2021	47,024	47,025

4 VALIDATION AND VERIFICATION RESULTS

RCE developed two Lists of Findings, one for the validation and one for the verification, notifying Therm of corrective action requests (CARs), additional documentation requests (ADRs), and clarification requests (CRs). Therm appropriately responded to all items in the Lists of Findings. The Lists of Findings are provided as Appendix B.

5 VALIDATION AND VERIFICATION CONCLUSION

RCE conducted a risk-based validation and verification of the Project that included a strategic review of the project data, documentation, and emission reduction calculations. The objective of the validation activities was to assess the project design, baseline scenario, and monitoring plan and to ensure compliance of the Project Plan to the assessment criteria defined in Section 1.5.1. The objective of the verification activities was to conduct an independent assessment of the project reporting period and ex-post GHG emission reductions resulting from the Project.

Based on the review and the historical evidence collected, RCE concludes to a reasonable level of assurance that the GHG assertion is free of material misstatement. The emission reductions resulting from the Project for the reporting period March 1, 2021 to November 8, 2021 can be considered in conformance with the:

- ACR Standard, Version 7.0 (December 2020)
- ACR Validation and Verification Standard Version 1.1 (May 2018)
- Methodology for the Quantification, Monitoring, Reporting, and Verification of Greenhouse Gas Emissions Reductions and Removals from Advanced Refrigeration Systems, Version 2.1 (August 2021)
- ISO 14064-3:2006 “Greenhouse gases – Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions”

Table 3 provides a summary of the emissions reductions.

Table 3. Emissions Reductions

Vintage	Baseline Emissions (MTCO ₂ e)	Project Emissions (MTCO ₂ e)	Emissions Reductions (MTCO ₂ e)
2021	47,036	11	47,025

Lead Validator and Verifier



Garrett Heidrick

Internal Reviewer



Michael Coté

6 APPENDIX A—DOCUMENTS REVIEWED

1. Therm's Project Plan
2. Therm's Monitoring Report
3. All applicable refrigerant charges
4. All applicable low-GWP refrigerant charges
5. All leak rate calculations and associated data
6. All applicable low-GWP system specifications
7. Coborn's Buffalo press release for newly opened grocery store
8. AAA Refrigeration Service, Inc.'s installation work order to confirm start date
9. All applicable ownership contracts between grocers and Therm
10. Regulatory compliance and regulatory surplus attestations
11. EPA ECHO database search for all project locations

7 APPENDIX B—LISTS OF FINDINGS

Includes Corrective Action Requests (CAR), Additional Documentation Requests (ADR), and Clarification Requests (CR)

Validation List of Findings	Finding and Date	Section of ACR Standard v.7.0 (S), Val/Ver Standard v.1.1 (VV), or Methodology (M)	OPO/APD response and date	RCE response and date	Additional OPO/APD response and date	Additional RCE response and date	Open or Closed
CAR 1	<p>2/8/2023: Please correct the following in Section A of the Project Plan:</p> <p>1) Section A.3 "Crediting Period." The explanation is repeating itself. Please delete the second sentence.</p> <p>2) Section A.3 "Net of Leakage." Therm states that leakage is a critical factor and then states that leakage is not considered. Please see Section 4.3 of the Methodology final sentence, "...leakage can be disregarded."</p> <p>3) Section A.3 "Community & Environmental Impacts." The description given is repetitive. See paragraphs 2 and 4 and 3 and 5. Please revise.</p> <p>4) Section A.4 Table 3, please provide site names.</p> <p>5) Section A.5 "Description of project activity." Please revise the second paragraph. The language is confusing. For example, how were the newly manufactured systems previously manufactured with high-GWP refrigerants?</p> <p>6) Section A.5 "Background Information." Please revise, "The Montreal Protocol has taken action to limit the use of high GWP refrigerants and over the years and the US EPA implemented the Significant New Alternatives Program (SNAP) to work with and guide industry in these transitions." The first and second paragraphs are identical, please revise.</p> <p>7) Ensure that all "GWP" are capitalized for consistency throughout the report.</p> <p>8) Please review significant figures. For consistency, ensure that all values are using the same significant figures. (Section A7 as example).</p>	Project Plan Instructions	<p>2/8/2023: Please correct the following in Section A of the Project Plan:</p> <p>1) Corrected</p> <p>2) Corrected</p> <p>3) Corrected</p> <p>4) Added</p> <p>5) This is describing the the systems are new, but would have been previously manufactured with higher GWP, I've revised that text.</p> <p>6) Corrected</p> <p>7) Corrected</p> <p>8) Revised</p>	2/13/2023: Closed.			Closed

CAR 2	<p>2/8/2023: Please correct the following in Section B of the Project Plan:</p> <p>1) Section B3 Table 7. Please add in the reporting period as another temporal boundary.</p> <p>2) If possible, please remove the blank page between B3 and B4.</p> <p>3) Section B5 footnote #3. Based on previous verifications, this source is incorrect.</p>	Project Plan Instructions	<p>2/8/2023: Please correct the following in Section B of the Project Plan:</p> <p>1) Section B3 Table 7. Please add in the reporting period as another temporal boundary.- Revised</p> <p>2) If possible, please remove the blank page between B3 and B4.</p> <p>3) Section B5 footnote #3. Based on previous verifications, this source is incorrect. -Revised</p>	2/13/2023: Closed.			Closed
CAR 3	<p>2/9/2023: Please adjust the following language in the Monitoring Report, Section 2 part c). "All other data is determined as outlined in section D1." This language refers to section D1 of the Project Plan. Please revise to refer to the proper section in the Monitoring Report.</p>	Monitoring Report Instructions	2/9/23 Revised	2/13/2023: Closed.			Closed
CAR 4	<p>2/9/2023: Please adjust the following language in the Monitoring Report, Section VIII. The term "Site verification" is incorrect. Please revise to "full site visit verification."</p>	Monitoring Report Instructions	2/9/23 Revised	<p>2/13/2023:</p> <p>1) Therm's second bullet: "Last virtual site visit verification.." This bullet, according to the instructions, is used to show the date of the last full site visit verification. Because this project type does not have multiple years of verification, it will not have a previous full verification.</p> <p>2) Therm's fourth bullet: "...will conduct 4 virtual full site visit verifications.." Please remove the words full and verifications. RCE will be conducting 4 virtual site visits for this one verification.</p>	<p>2/13/2023:</p> <p>1) Completed</p> <p>2) Completed</p>	2/13/2023: Closed.	Closed

CAR 5	<p>2/13/2023: Please address the following regarding the conversion dates:</p> <p>1) For Willmar, the "Refrigeration Legend.pdf" has a date of 5/10/2021 and it states that R-744 is the cooling refrigerant. However, in the calculator, PP, and MR, the date listed is 9/16/2021, which is found on the "Willmar Invoice.pdf."</p> <p>2) For Buffalo, the "Buffalo Rack Specs.pdf" has a date of 5/6/2021, but the date listed in the calculations, PP, and MR is 11/8/2021.</p> <p>3) There is no clear date for ShopRite. The only date I can find is when the old refrigerant was pulled out, which was on 4/7/2021.</p>	M 1.2	<p>2/14/23</p> <p>1). Charge Letter w/ date uploaded for Willmar</p> <p>2). Buffalo Opening date is public record as proven by press release in data folder</p> <p>3). ShopRite LP is when the old refrigerant was removed, it is safe to assume they wouldn't be able to operate with no cooling, and so when the old refrigerant was removed is the official switch to the new system.</p>	<p>2/15/2023: Discussed over phone call. The documents that RCE was referencing were design documents for pre-install information.</p> <p>Closed</p>			Closed
ADR 1	2/8/2023: Please provide the regulatory surplus attestation.	M 3.2.1	2/9/23 Uploaded	2/13/2023: Uploaded. Closed.			Closed
ADR 2	2/8/2023: Please provide evidence of the GWPs used for R-507a and R-402a. Based on RCE's review, R-507a's GWP is 3985 and R-402a's GWP is 1902.	M 4.1	2/9/23 R507 GWP Updated to 3985; R-402a followed up with Garrett with Spreadsheet breaking down calculation of GWP from IPCC Table 16	2/13/2023: Because 507a is a blend, please provide calculations for the GWP similar to 402a's. The GWP that RCE found comes from The Climate Registries GWP factors. 507a is not found in the IPCC documents.	Sent to Garrett 2/13/23; also updated in PPD & MR & Appendix A Spreadsheet	2/13/2023: Closed.	Closed
ADR 3	2/9/2023: Please provide the "Refrigeration Carbon Development Agreement" for all locations.	S 6.E	Coborns & Stew Uploaded	2/13/2023: Waiting on ShopRite.	Uploaded 2/13/23	2/15/2023: Closed.	Closed
CR 1	2/8/2023: In the Project Plan, Section A.3 "Eligibility," "Eligible Sectors," Therm states, "The project does not involve replacement of CFC, HCFC, or HFC based equipment." It was RCE's understanding that the new, low-GWP refrigerants could not be used in the previous refrigeration systems, so they had to be replaced with new systems. Please confirm whether or not the project replaces CFC, HCFC, or HFC based equipment.	Project Plan Instructions & M 1.2	2/9/23- Revised	2/13/2023: Closed.			Closed
CR 2	2/13/2023: Where did Therm find their GWP for R-290? "Refrigerant tables" in the "Appendix A" spreadsheet, shows that the values came from SNAP. When RCE navigates the SNAP website to Retail Food Refrigeration and selects Supermarket Systems, the GWP for 290 is 2,530. Therm has the GWP listed as 3.	M 4.1	2/14/23: Sent email to Garrett confirming GWP value.	2/15/2023: Reviewed over phone call, RCE was referencing the incorrect version of 290. RCE's 290 was in a mix not stand alone. Closed.			Closed

Verification List of Findings	Finding and Date	Section of ACR Standard v.7.0 (S), Val/Ver Standard v.1.1 (VV), or Methodology (M)	OPO/APD response and date	RCE response and date	Additional OPO/APD response and date	Additional RCE response and date	Open or Closed
ADR 1	2/13/2023: Please provide invoices for all leaks for ShopRite.	M 4.0	Comes from a system that tracks it-Set up for 2/16/23 @11am EST to show how system works, how data is entered and how reports are pulled.	2/16/2023: Reviewed on site visit. Closed			Closed
ADR 2	2/13/2023: Please provide the last 2 year's worth of invoices for ShopRite leaks.	M 4.0	Comes from a system that tracks it- going to organize screen share to show system and show how reports are pulled.	2/16/2023: Reviewed on site visit. The data is totalized from 2019 and 2020. Closed			Closed
ADR 3	2/13/2023: Please provide the following evidence for recovered ODS: 1) All R-22 is required to be destroyed; including Bills of Lading to destruction facility and an attestation from the project proponent that is signed by the proponent and destruction facility that indicates the volume destroyed and the dates of destruction. 2) All other refrigerant is required to be managed according to Section 608 of the Clean Air Act; including documentation of recovery and management, and a signed attestation from the project proponent that the HFCs were managed according the EPA regulations.	M 1.2 and 5.2	Removal is acceptable according to ACR, removal evidence uploaded.	2/15/2023: Please provide attestation of removal for Stew Leonard's.	Uploaded 2/17/2023.	2/21/2023: Provided. Closed.	Closed
ADR 4	2/13/2023: Please provide evidence of recovery for all grocery conversions. Also, please provide evidence of old refrigerant system that was replaced by new system.	M 1.2 and 5.2	ShopRite & Willmar uploaded; waiting on Stew	2/15/2023: Please provide attestation of recovery and removal according to Section 608 of the USEPA for Stew Leonard's and Coborn's Willmar.	Uploaded 2/21/2023.	2/21/2023: Provided. Closed.	Closed
ADR 5	2/14/2023: Please provide all leak rate calculations for all sites.	M 4.0	Uploaded 2/14/23	2/15/2023: Provided.			Closed
ADR 6	2/15/2023: Please provide Stew Leonard's initial charge amount for the original system. Therm stated that it is 5060, but RCE cannot find this value.	M 4.0	Proof of lb's leaked impacts the emissions, not baseline charge. If the charge changes the leak rate also changes and emissions is not impacted. 2/15/23	2/15/2023: Discussed over phone call. RCE would still like to review documentation of the initial charge (email, invoice, etc.). Reviewed during site visit. AAA refrigeration provided attestation of 5060 lbs. Closed			Closed

CR 1	2/14/2023: Please describe where the cooling capacity for Buffalo's system comes from. When RCE reviews the "Buffalo Rack Specs.pdf," the only value that RCE can find is 301.2 kBTU/h. In Therm's "Appendix A" spreadsheet, the cooling capacity is listed as 1,248 kBTU/h.	M 4.0	Summary -16 Suction Group (Page 1) Capacity 302.1 KBTU/H Plus Summary +19 Suction Group (Page 2) Capacity 945.9 KBTU/H= TOTAL CAPACITY of 1248 KBTU/H	2/15/2023: Reviewed over phone call. Closed.			Closed
CR 2	2/15/2023: Please describe where Therm found Buffalo's refrigerant charge value of 1450. In the "Coborn's Initial Charge.pdf," Buffalo's charge is 1200.	M 4.0	Updated to 1200 in PPD & Calc tab on Appendix A; emissions not impacted 2/15/23	2/15/2023: Updated. Closed			Closed
CR 3	2/15/2023: In the calculations, why was Willmar's R-507a system used to calculate project emissions and not the R-22 system?	M 4.0	The old system used 2 refrigerants, and the new system just uses CO2, the CO2 can go into either line, but should not be counted twice. I think once we complete the site visit, additional questions if any can be asked and clarified. 2/15/23	2/15/2023: Just curious why you chose one over the other. Closed.			Closed