

Verification Report for Coolgas India ODS Project 2—CAR 597

Climate Action Reserve

September 2010

**Prepared by: First Environment, Inc.
91 Fulton Street
Boonton, New Jersey 07005**



TABLE OF CONTENTS

1.	Introduction	1
2.	Objectives	1
3.	Verification Scope	1
4.	Standards Used to Verify Emissions (Criteria).....	1
5.	Overview of the Verification Process	2
5.1	Conflict of Interest Review	2
5.2	Audit Team	2
5.3	Audit Kick-off	2
5.4	Development of the Verification Plan	2
5.5	Site Visit	3
5.6	Emissions Reduction Data and Calculation Assessment	3
5.7	Corrective Actions and Supplemental Information	3
5.8	Verification Reporting	3
6.	Project's Conformance with Verification Criteria	3
6.1	Project Description	3
6.2	Eligibility	4
6.3	Additionality	5
6.4	Project Performance Against Protocol/Methodology and Project Management System	5
6.5	Emissions Reduction Calculation Assessment.....	6
6.6	Approved Variance or Deviations.....	7
6.7	Changes Due to Errata and Clarifications Issued by CAR	7
7.	Audit Results	7
8.	Verification Conclusion	7
9.	Lead Verifier Signature.....	9
10.	Independent Internal Reviewer Signature.....	9

1. Introduction

This report is provided to Coolgas, Inc. (Coolgas) as a deliverable of the Climate Action Reserve (CAR) project verification process. This report covers the verification of the Coolgas India ODS Project 2 (the Project) for the period from April 25, 2010 through May 30, 2010. First Environment, Inc. (First Environment) conducted the verification from March to August 2010. This verification was conducted under the joint verification provision of the CAR Article 5 ODS Project Protocol with Coolgas India ODS Project 1 (CAR 596).

2. Objectives

The purpose of this verification was, through review of appropriate evidence, to establish that:

- the Project conforms to the requirements of the verification criteria, including all eligibility requirements, discussed in Section 4 of this report; and
- the data reported are accurate, complete, consistent, transparent, and free of material error or omission.

3. Verification Scope

Specific scope metrics for the verification are outlined in the table below:

Geographic Boundaries	Entire chain-of-custody of destroyed ODS from production and storage in Rajasthan, India to destruction at the Clean Harbors Environmental Services Hazardous Waste Combustor in El Dorado, Arkansas, USA.
Greenhouse Gases Verified	Emissions reductions (expressed in units of carbon dioxide equivalents (CO ₂ -e)) resulting from destruction of CFC-12, an ozone depleting substance (ODS); Project emissions of CO ₂ from purchased electricity, fossil fuel combustion, and oxidation during destruction; Project emissions of ODS from incomplete destruction; and Project emissions of substitute refrigerants.
Reporting Period	April 25, 2010 through May 30, 2010
Data Sources	Metered and monitored data, official documents and records, and emission reduction calculations.

4. Standards Used to Verify Emissions (Criteria)

The following table outlines the guidance and protocols used to conduct this verification:

Standard of Verification	Climate Action Reserve Article 5 Ozone Depleting Substances Project Protocol, Version 1.0, February 2010 (CAR Protocol); Errata and Clarification to Article 5 ODS Project Protocol, Version 1.0, May 2010; Climate Action Reserve Program Manual, March 2010
Verification Process	Climate Action Reserve Verification Program Manual, June 2009; Section 8 of the CAR Protocol
Level of Assurance	Reasonable assurance
Materiality	Misstatements greater than five percent of the Project's emission reduction assertion are considered material; Qualitative non-conformities with the verification criteria are also considered material.

5. Overview of the Verification Process

To review the Project's greenhouse gas (GHG) information, the following verification process was used:

- conflict of interest review;
- selection of Audit Team;
- initial interaction and kickoff meeting with primary Coolgas contact;
- development of the verification plan;
- site visits;
- review and evaluation of raw data and calculations for period under review;
- follow-up interaction with Coolgas contact and site staff for corrective action or supplemental data as needed; and
- final statement and report development.

The verification process was utilized to gain an understanding of the Project's emission sources and reductions, to evaluate and verify the collection and handling of data, the calculations that lead to the results, and the means for reporting the associated data and results.

5.1 Conflict of Interest Review

Prior to beginning any verification project, First Environment conducts an evaluation to identify any potential conflicts of interest associated with the Project. No potential conflicts were found for this Project. First Environment also received determination of a low risk of conflict of interest from CAR in a notification dated March 9, 2010.

5.2 Audit Team

First Environment's Audit Team consisted of the following individuals who were selected based on their verification experience, as well as familiarity with ODS destruction projects.

Lead Verifier – Iris Caldwell
Verifier – Keith Dennis, P.E.
Verifier – John Mosheim, P.E.
Internal Reviewer – Jay Wintergreen

5.3 Audit Kick-off

The verification audit was initiated with a kick-off meeting on March 11, 2010 with the primary Coolgas contacts, Jesse Combs and Joel French. The meeting focused on confirming the scope, schedule, objectives of verification, and data required for verification.

5.4 Development of the Verification Plan

The Audit Team formally documented its verification plan as well as determined the data-sampling plan. The verification plan was developed based on the discussion of key elements of the verification process during the kick-off meeting. Coolgas was afforded the opportunity to comment on the key elements of the plan for verification. Based on items discussed and agreed upon with Coolgas, the plan identified the First Environment project team members,

project level of assurance, materiality threshold, and standards of evaluation and reporting for the verification. It also provided an outline of the verification process, established project deliverables, and presented a data-sampling plan designed to review all project elements in areas of potentially high risk of inaccuracy or non-conformance.

5.5 Site Visit

Keith Dennis and John Mosheim conducted a site visit to the Clean Harbors Environmental Services hazardous waste combustion facility on March 26, 2010 to assess the Project's data management systems and interview personnel at the destruction facility relevant to the Project. Keith Dennis conducted a site visit to the SRF Limited Chemical Plant located in Rajasthan, India, as well as SRF Limited's corporate offices in Gurgaon, India, on April 12, 2010 to verify the point of origin of the CFC-12 (R-12); to assess the chain-of-custody of the substance as it was created, stored, and transported to the U.S.; to review key documents related to the project; and to interview key staff involved in the Project. During the visit, First Environment reviewed QA/QC procedures, personnel training, and conformance with the requirements of the CAR Protocol.

5.6 Emissions Reduction Data and Calculation Assessment

This assessment used information and insights gained during the previous steps to evaluate the collected data and the reported emissions reduction quantities, and identify if either contained material or immaterial misstatements.

5.7 Corrective Actions and Supplemental Information

The Audit Team made requests for corrective action and clarification during the verification process. Coolgas provided sufficient responses to all corrective action and clarification requests. The Audit Team also issued requests for supplement information during the verification process.

5.8 Verification Reporting

Verification reporting, represented by this report, documents the verification process and identifies its findings and results. Verification reporting consists of this report for Coolgas, a verification opinion, and a list of findings to be submitted to the Climate Action Reserve.

6. Project's Conformance with Verification Criteria

6.1 Project Description

The Project consists of importation of a virgin private stockpile of R-12 from the SRF Limited factory in Rajasthan, India, where it was produced and stockpiled, to the U.S. for destruction by incineration at the Clean Harbors Environmental Services hazardous waste combustion facility in El Dorado, Arkansas. The project activity consists of the collection and destruction of the ODS, resulting in a net reduction of CO₂ equivalent emissions. Coolgas purchased and imported four ISO tanks of R-12 from SRF Limited, each containing approximately 15 metric tons of ODS. The R-12 from the four ISO tanks was destroyed between April 25 and May 30, 2010.

6.2 Eligibility

The Project involved the destruction of R-12 from a private stockpile of refrigerant that can be legally sold, which is an eligible category of ODS under the CAR Protocol. First Environment verified that the ODS were from a private stockpile of refrigerant and that it could be legally sold during the site visit to the Facility through interviews with SRF Limited staff and through review of documentation, including Government of India Ministry of the Environment and Forest Ozone Cell production quota documents, the agreement between India and the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol, and Applications for Removal of Excisable Goods for Export (ARE 1) forms signed by SRF Limited and Indian government officials.

The Project's start date was on April 25, 2010 when the first ODS destruction event took place at the Clean Harbors Environmental Services hazardous waste combustion facility. First Environment confirmed the start date by reviewing the Certificates of Destruction for the four ISO tanks containing the ODS. First Environment also confirmed that the destruction facility is the same for all Certificates of Destruction, that the destruction activities span a timeframe of no more than 12 months from commencement of the first ODS destroyed to completion of the last, and that no Certificate of Destruction is included as part of another project.

First Environment reviewed chain-of-custody documentation, an attestation by SRF Limited signed by the company's CEO, and a purchase agreement between SRF Limited and Coolgas to verify that Coolgas is the rightful project developer and owner of GHG reductions for all ODS destroyed during the reporting period. Additionally, First Environment confirmed that the Attestation of Title was completed correctly by Coolgas and is on file with CAR.

The ODS destroyed by the Project originated in India. First Environment confirmed that India is an Article 5 country through review of the United Nations Environment Programme Ozone Secretariat's List of Parties categorized as operating under Article 5 Paragraph 1 of the Montreal Protocol.

R-12 was phased out of production in India on August 1, 2008, as evidenced by an official agreement between India and the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol. First Environment reviewed this record as well as an attestation from SRF Limited concerning the production date of the ODS in order to confirm that the ODS were legally produced prior to production phase out and that the ODS were eligible for export prior to January 1, 2010. First Environment confirmed that a letter from the Ozone Secretariat to SRF Limited was submitted to CAR as evidence of the early production phase out.

Prior to importation on May 25, 2009, Coolgas submitted a voluntary pre-import notification to the Environmental Protection Agency on May 14, 2009. This submission was prior to 60 days from the effective date of the CAR Protocol, as required. Additionally, Coolgas submitted the completed Entry Summary to U.S. Customs in June 4, 2009, which is prior to the June 30, 2010 date required by the CAR Protocol. First Environment reviewed all relevant importation documentation during the verification process.

The ODS was destroyed at the Clean Harbor Environmental Services hazardous waste combustion facility in El Dorado, Arkansas. The facility is an approved Hazardous Waste Combustor (HWC) subject to the Resource Conservation and Recovery Act (RCRA). First

Environment reviewed the facility's permits and interviewed staff to verify that the facility meets the necessary requirements specified in the CAR Protocol.

In order to assess regulatory compliance of the originating facility, First Environment reviewed SRF Limited attestation documents and customs and importation documents, as well as interviewed site staff. The review of the documents and the results of the interviews indicated that the SRF Limited facility was in material compliance during the reporting period.

In order to assess regulatory compliance of the destruction facility, First Environment reviewed the destruction facility's permit documentation, the attestation documents, and customs and importation documents, as well as interviewed site staff. The cursory review of permits and documents and the results of the interviews indicated that the Clean Harbors Environmental Services hazardous waste combustion facility was in material compliance and no material violations of permits or other requirements occurred during the reporting period.

First Environment also relied in part on the Attestation of Regulatory Compliance completed by Coolgas for the reporting period. First Environment reviewed this document during the verification process and confirmed that it was completed correctly and is on file with CAR.

6.3 *Additionality*

The Project meets the project definition and other eligibility requirements established by the CAR Protocol and therefore exceeds the performance standard defined by the CAR Protocol. Specifically, the project consists of the destruction of eligible imported ODS (stockpiled virgin refrigerant that can be legally sold to the market) at a single destruction facility. In order to establish regulatory additionality, First Environment relied in part on the Attestation of Voluntary Implementation completed by Coolgas for the reporting period. First Environment reviewed this document during the verification process and confirmed that it was completed correctly and is on file with CAR. First Environment also reviewed the letter from the Ozone Secretariat that indicates destruction of R-12 is not compulsory in India, as well as the agreement between India and the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol which does not require destruction of the R-12.

6.4 *Project Performance Against Protocol/Methodology and Project Management System*

The Project was implemented in conformity with the CAR Protocol.

First Environment's Audit Team discussed the following topics with site staff during the site visits in March and April 2010 and confirmed the information during this verification process:

- the data collection process; and
- internal document and protocols that set guidelines for the data collection process.

Information gathered during these discussions was used to assess the Project's GHG management system and its controls for sources of potential errors and omissions.

First Environment verified that Coolgas adequately documented the point of origin for the Project and provided government documentation that the virgin ODS was produced prior to the production phase-out date in India. First Environment reviewed several documents to verify the date and legality of production, including government issued ODS production quotas, an

independent audit undertaken by the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol, official excise and production records, and attestations by Coolgas and SRF Limited.

Coolgas adequately documented the custody and ownership of the ODS throughout the entire project activity, from point of origin in India to final destruction. First Environment reviewed several documents to verify the chain-of-custody of the ISO tanks, including purchase orders, customs documents, official importation, exportation, shipping documents, and bills of lading.

Coolgas adequately documented ODS quantification and quantity analysis requirements. The weight of ODS was appropriately determined through the use of calibrated scales at the Clean Harbor's destruction facility. First Environment reviewed weight tickets and calibration records for the scales and interviewed staff to verify that the requirements of the CAR Protocol were met. The ODS was analyzed by National Refrigerants Laboratory, Inc., which is an Air-Conditioning, Heating, and Refrigeration Institute (AHRI) certified laboratory. First Environment reviewed chain-of-custody documentation and the National Refrigerants Laboratory, Inc. analysis reports for the samples taken to analyze the content of the four ISO tanks, as well as interviewed site staff to confirm that the composition and concentration of the ODS were analyzed in accordance with the CAR Protocol.

First Environment reviewed operating conditions monitored during the destruction of the ODS for the Project, including exit gas temperature, pressure, and carbon monoxide emissions. This review indicated that the Project meets the requirements for ODS destruction efficiency as given in the CAR Protocol. First Environment confirmed that the Certificate of Destruction information entered into the CAR software is accurate. First Environment also reviewed the Project's Monitoring and Operations Plan and determined that it meets the requirements of the CAR Protocol.

During the site visits, First Environment reviewed training records and procedures as well as interviewed personnel involved with the Project, including personnel at SRF Limited, Clean Harbors Environmental Services, and Coolgas. First Environment confirmed that project personnel were appropriately trained and demonstrated awareness of related procedures and requirements based on their level of responsibility.

6.5 Emissions Reduction Calculation Assessment

As part of the emissions reduction calculation assessment, the Project's assumptions and calculations were reviewed. Emission reduction calculations were reviewed to ensure accuracy in the formulas used and the raw data used as inputs. The formulas were tested to ensure they were consistent with the calculation methodology described in the CAR Protocol.

Copies of the raw data used in the calculations, including weight tickets and sample analysis reports, were compared with the data used in the final calculations and tested for transcription or mathematical errors. All raw data sources and calculations over the entire reporting period were reviewed. Additionally, First Environment performed an independent recalculation of emission reductions for the entire reporting period to assess whether the submitted calculations were free of material misstatement.

First Environment confirmed that the calculation of baseline emissions was completed in accordance with the CAR Protocol. Coolgas correctly applied the global warming potential for

R-12, used the correct 10-year cumulative emission rate, and appropriately accounted for impurities revealed in the results of the sampling analysis.

First Environment confirmed that the calculation of project emissions was completed in accordance with the CAR Protocol. Coolgas correctly calculated project emissions from substitute refrigerants and applied default project emissions from ODS destruction and transportation.

6.6 *Approved Variance or Deviations*

Coolgas did not request any variances or deviations from the CAR Protocol for the reporting period.

6.7 *Changes Due to Errata and Clarifications Issued by CAR*

The Errata and Clarification to Article 5 ODS Project Protocol, Version 1.0 document, issued on May 7, 2010, provided additional clarification regarding the requirements of joint verification. First Environment confirmed that all conditions had been met for the joint verification of Coolgas India ODS Projects 1 and 2, specifically:

- First Environment was contracted as the verification body for both projects;
- Notice of Verification Activity-Conflict of Interest forms were approved prior to the commencement of joint verification activities;
- a comprehensive verification plan was issued prior to any joint verification activities; and
- project activities for both projects commenced prior to any joint verification activities.

7. *Audit Results*

Coolgas provided good documentation for its emissions estimates, as well as its procedures surrounding the data collection process, documentation of the point of origin of the R-12, and documentation of the chain-of-custody of the R-12. To complete the verification process, First Environment requested corrective action and clarification from Coolgas. The responses given by Coolgas were sufficient to resolve the issues raised by the Audit Team.

Verified results show 551,802 metric tonnes of CO₂e from Vintage 2010 are eligible for registration with the Climate Action Reserve.

8. *Verification Conclusion*

Based on the assessments performed and the evidence collected, First Environment concludes that the Project GHG emissions reductions, due to the destruction of Article 5 ODS over the period of April 25, 2010 through May 30, 2010, can be considered with a reasonable level of assurance:

- consistent with the Project Methodology,
- without material discrepancy, and
- meeting the minimum level of accuracy of at least 95 percent.

Verified results show:

Reporting Period: April 25, 2010 to May 30, 2010	Total
Baseline Emissions (tCO₂e)	618,751
Project Emissions (tCO₂e)	66,949
Emissions Reductions (tCO₂e)	551,802

*as measured and calculated in accordance with the Project Methodology

9. Lead Verifier Signature



Iris Caldwell
Engineer II

10. Independent Internal Reviewer Signature



Jay Wintergreen
Senior Associate