

## ARB Compliance Offset Program

### Ozone Depleting Substances Compliance Offset Protocol (November 14, 2014)

#### Frequently Asked Questions

In California's Greenhouse Gas (GHG) Cap-and-Trade Program, covered entities may use ARB offset credits to fulfill up to 8 percent of their compliance obligation. Offset credits are tradable compliance instruments that represent verified GHG emission reductions or removal enhancements made in sectors and sources not covered by the Cap-and-Trade Program.

ARB has developed this Frequently Asked Questions (FAQs) document specific to ozone depleting substance projects using ARB's Compliance Offset Protocol Ozone Depleting Substances (ODS) Projects (protocol) dated November 14, 2014, and the Cap-and-Trade Regulation (Regulation) as amended, effective November 1, 2015, except where explicitly noted.

The Regulation, which appears at sections 95801 to 96022 of Title 17, California Code of Regulations, and the protocols incorporated therein, are a set of rules that establish the compliance offset program and the methods for quantifying GHG emission reductions and enhanced sequestration.

**Disclaimer:** ARB staff has prepared this document to describe the regulatory requirements in a user-friendly format. **Unlike the Regulation and offset protocols, this guidance document does not have the force of law.** It is not intended to and cannot establish new mandatory requirements beyond those that are already in the Regulation, and it does not supplant, replace, or amend any of the legal requirements of the Regulation or protocols. Conversely, this document's omission or truncation of regulatory requirements does not relieve operators of their legal obligation to fully comply with all requirements of the Regulation and the Offset Protocols and is not intended as a substitute for reading the Regulation and protocols.

ARB makes every effort to keep its documents up to date. However, ARB does not guarantee the accuracy of this document and shall not be responsible for any errors or omission in content. ARB reserves the right to make changes without notice.

Conformance with protocols and the Regulation requirements is the responsibility of the Offset Project Operator, Authorized Project Designee, and Verification Body, as applicable. ARB cannot guarantee that offset projects using this document will pass verification.

1. Verification Services

- a) **Does the Regulation stipulate any potential conflict of interest (COI) issues between a verification body (VB) or verifier and a destruction facility? For example, can a verification body or verifier be involved with a verification for a project if they have conducted an audit at that same destruction facility?**

The regulation does not identify COI between the verification body or verifier and the destruction facility, with one exception: the potential for conflict of interest must be deemed to be high where, during the previous five years, a verifier has conducted a third party certification of the destruction facility to meet Technology and Economic Assessment Panel of the Montreal Protocol (TEAP) requirements (see Section 95979(b)(2)(T) of the Cap-and-Trade Regulation (Regulation)).

- b) **A second verification to reduce the invalidation timeframe (invalidation verification) cannot begin until ARBOCs have been issued to the project in question. However, may the VB submit their Notice of Offset Verification Services (NOVS) and COI self-evaluation and do some of the planning/scoping activities in anticipation of the invalidation verification prior to ARBOCs being issued?**

Offset Verification services, as defined Section 95802(a)(253) of the Regulation shall not begin until ARBOCs are issued. In accordance with Section 95977.1(b)(1), the NOVS must be submitted 30 days prior to starting offset verification services. If the NOVS is submitted in anticipation of but prior to ARBOC issuance, the verifier may have to submit a revised NOVS to adjust the verification start date if the ARBOCs are not issued prior to the original start date stated in the NOVS.

- c) **Section 95977.1(a)(1) of the Regulation amendments that became effective July 1, 2014 states that neither a verification body, verification team member, nor technical consultant may conduct offset verification services for more than six consecutive offset projects, after which the verifier may not conduct verification services for the Offset Project Operator (OPO) or Authorized Project Designee (APD) until the OPO/APD has used a different verifier for three subsequent projects. Prior to 7/1/14, the Regulation language allowed for more than six consecutive ODS projects to be verified by the same verifier, as long as the projects occurred within a consecutive six-year period.**

- i. **Are the above requirements forward-looking (i.e. only applicable from July 1, 2014 on) or do these requirements impact OPO/APDs**

**and VBs that already had contractual arrangements but would now be subject to these new requirements?**

- ii. **The language in Section 95977.1(a)(1) states that once a verifier has verified six consecutive offset projects, the verifier must wait until a minimum of three offset projects have been verified by another verifier before resuming verification for that OPO/APD, however, the amendment does not specify that the three projects must be consecutive. Can this requirement be met simply by having an alternate verifier verify three non-consecutive projects, or is the intent that the VB must wait until three consecutive projects are verified?**
- iii. **In a scenario where fewer than six consecutive offset projects have been verified by the same verifier and the OPO/APD switches verification bodies, does the original verifier still need to wait until three consecutive offset projects have been verified by another verification body(ies) to resume conducting verifications for the OPO?**
- iv. **How is the order of verifications determined?**

The answers are as follows:

- i. The six project limit began effective July 1, 2014. Verifications conducted prior to this date are not counted in the six project limit.
- ii. The OPO must wait until three projects are verified by another verification body before hiring the original verification body to conduct another verification. The OPO/APD does not have to use the same alternate verifier for three consecutive projects, but must have three consecutive projects verified by a verifier other than the original verification body, or the requirement in 95977.1(a)(1) is not met.
- iii. Yes. The language in the Regulation section 95977.1(a)(1) states that “after a verification body or offset verification team member(s) has conducted offset verification services for **up to** six consecutive projects developed under the [Protocol]...” (emphasis added). Therefore, the requirement to have three subsequent consecutive projects verified by a different verifier prior to returning to the original verifier applies whether the original verifier verified six or fewer than six consecutive projects. The rotation requirements apply

between the verification body/ verification team members, and OPO, APD, and any technical consultants (see Section 95977.1(a)(1) of the Regulation).

- iv. For first verifications, the order is determined by the date of offset project commencement. For second verifications to reduce the invalidation timeframe, the order is determined by the date of NOVS submittal.

## 2. Eligibility and Regulatory Compliance

- a) **For eligible ODS, how does one prove that the ODS is not “intended for use” as an application that is not eligible?**

A facility’s historical ODS use records could be used to check the regular usage of ODS. For example, the records required to be maintained pursuant to the Clean Air Act section 608 (<http://www.epa.gov/ozone/title6/608/>) would be a good source to check a facility’s historical ODS use.

- b) **If an ODS project receives an adverse offset verification statement (OVS) for an invalidation re-verification, what are the possible next steps?**

The possible next steps would depend on the reason for the adverse OVS, and be determined on a case-by-case basis.

- c) **An ODS project activity begins when an OPO initiates the action to acquire ODS for destruction for the carbon market. Before that time the ODS is in the hands of various parties (extractor, aggregator, storage warehouse) and could either be directed to the recycling market or to ODS destruction. Hence the ODS may be aggregated to 500 lbs or greater, triggering the Point of Origin documentation requirements in Subchapter 6.2, prior to the start of the ODS project activity. Is the OPO required to prove regulatory compliance in accordance with Subchapter 3.8 prior to the date the project activity begins, i.e. prior to ODS being targeted for destruction?**

Yes, Subchapter 6.1(b) of the 2014 ODS Protocol states that in order for ODS projects “to be eligible to receive ARB offset credits or registry offset credits, the Offset Project Operator or, if applicable, the Authorized Project Designee must collect and maintain documentation showing regulatory compliance back to all points of origin.” Therefore, there is no flexibility on this requirement regardless of specific project circumstances. Regulatory compliance must be demonstrated for the activities as specified in Subchapter 3.8, including the collection of ODS. The regulatory compliance

requirements must be satisfied from the Point of Origin through destruction, even if the Point of Origin occurs prior to when the OPO initiated action to acquire the ODS for destruction.

- d) Section 3.8(b) of the 2014 ODS protocol states: “The regulatory compliance requirements for a project apply to the collection, recovery, storage, transportation, mixing, and destruction of ODS, including disposal of the associated post-destruction waste products. The regulatory compliance requirements extend to the destruction facility during the time ODS destruction occurs.”**

**Please clarify how regulatory compliance of parties other than the destruction facility must be verified, and what timeframes must be considered when verifying the regulatory compliance of these other parties (e.g. the aggregator(s) and transportation company(ies)). These parties are involved with offset projects during timeframes that may be outside the actual reporting period, which generally coincides with destruction event(s).**

Regulatory compliance requirements of parties other than the destruction facility extend to those parties during the timeframe(s) they are involved in the collection (beginning at the point of origin), recovery, storage, transportation, and mixing of ODS that is destroyed as part of a project. These timeframe(s) may be outside of the reporting period, but are activities related to the implementation of the project. The verifier’s scope of assessing regulatory conformance is discussed in Section 2 of ARB’s guidance document “California Air Resources Board Offset Credit Regulatory Conformance and Invalidation Guidance” posted in February 2015. The document is available here:

[http://www.arb.ca.gov/cc/capandtrade/offsets/arboc\\_guide\\_regul\\_conform\\_invalidation.pdf](http://www.arb.ca.gov/cc/capandtrade/offsets/arboc_guide_regul_conform_invalidation.pdf)

- e) May a project developer using the ODS compliance protocol utilize a (non-RCRA) destruction facility that uses a technology not specifically specified in the Montreal Protocol Technology and Economic Assessment Panel (TEAP) *Report of the Task Force on Destruction Technologies* (page 5) but still meets the TEAP standards and the two parameters listed in sections 2.1 (a) (2) (A) & (B) of the ODS compliance protocol?**

Yes. The technology does not need to be specifically listed in the TEAP report, as long as the standards are met.

3. Quantification

- a) **Does the calculation of substitute refrigerants need be included in the calculation of project emissions in the event of facility demolition, shut down, equipment replacement, etc.?**

Yes. Substitute refrigerants should still be included and the appropriate value should be selected from Table B.1 of the 2014 ODS Protocol.

- b) **The protocol requires the moisture content of each ODS sample to be less than 75% of the saturation point in parts per million (ppm) based on the temperature recorded at the time the sample was taken. However, the protocol does not specify what reference must be used for determining the saturation point of a particular ODS species. For example, suppose one reference states that the saturation point for R-11 at 70°F is 88 ppm, whereas a different reference states that the saturation point for R-11 at 70°F is 90 ppm. Since the protocol does not specify the basis for establishing this value, please clarify whether an OPO may justify a reference of their choosing, provided that the verifier deems it an acceptable verifiable reference, based on their professional judgment.**

Yes, an OPO may choose an acceptable verifiable reference that is approved by the verifier.

- c) **In both the 2011 and the 2014 versions of the ODS protocol, equation 5.8 calculates project emissions from ODS transportation and destruction based upon the total mass of ODS sent for destruction ( $Q_{\text{ODS},i}$  in the 2011 protocol;  $Q_{\text{TotalODS}}$  in the 2014 protocol). Consider a situation where project emissions from transportation and destruction are being quantified for Project B. The total mass of ODS sent for destruction with Project B includes a small vapor heel from Project A. After the destruction event for Project B, there is a small vapor heel remaining.**

- i. **Should the quantity input into equation 5.8 for  $Q_{\text{ODS},i}$  or  $Q_{\text{TotalODS}}$  include the vapor heel from Project A?**

Yes. An existing vapor heel from Project A that is included in Project B would be part of the total mass sent for destruction, therefore, should be included in equation 5.8.

- ii. **Should the quantity input into equation 5.8 for  $Q_{\text{ODS},i}$  or  $Q_{\text{TotalODS}}$  include the vapor heel from Project B?**

No. The vapor heel left after completion of the destruction event for Project B would not be part of the total mass sent for destruction, therefore, should not be included in equation 5.8.

#### 4. Project Documentation Requirements

**a) Is destruction of virgin ODS stockpiles eligible for ARB offset credits?**

Yes. Destruction of ODS, virgin or not, meeting the eligibility requirements in Chapters 2 and 3 of the 2014 ODS Protocol is eligible for ARB offset credits.

**b) Section 6.1(g)(5) [of the 2014 protocol] requires that the OPO/APD collect from the destruction facility and maintain “effluent discharges in terms of water and pH levels.” Does this require the OPO/APD to provide the quantity of effluent water discharge in addition to the pH of the discharge?**

If the destruction facility is required to monitor the quantity or volumetric flow rate of their effluent discharge for purposes of regulatory compliance, then these records must be available to the verifier. A destruction facility is not required to keep volumetric flow records if these records are not required to meet a regulatory or permit requirement, however destruction facilities are required in all cases to keep records of the pH of the discharge.

**c) In a situation where several small quantities of ODS are sequentially collected by a single collection vehicle from several different and unrelated locations and transported to a central facility, would the point of origin be the central facility, or would it be the location of the pick-up site where the cumulative mass of ODS in the collection vehicle crosses the 500 pound threshold?**

The point of origin would be the central facility where the ODS is delivered and not the location where the cumulative mass of collected ODS in the collection vehicle crossed the 500 pound threshold.

**d) Questions regarding materials stockpiled by another party prior to acquisition by an OPO:**

- i. Would a stockpile need to remain in the same physical location in order to meet the point of origin requirements for stockpiled material in 6.2(b)(1)?**

- ii. **Would it be acceptable to remove a cylinder from a stockpile, and destroy the remaining subset of the stockpile for the project?**
- iii. **If, prior to acquisition by an OPO, a stockpile is relocated from one storage facility to another while still under the same party's ownership, then subsequently returned to the original storage location, would the date that the ODS was aggregated into a quantity of 500 pounds or greater at the original location (prior to relocation) still mark the beginning of the stockpile period?**

The following answers apply to material stockpiled prior to 1/1/2015:

- i. No; a stockpile does not need to remain in the same physical location for 24 months, as long as all cylinders in the stockpile stay together, and the chain of custody (including for any transfers) is well-documented as required by subchapter 6.1 of the protocol.
- ii. Yes, as long as the remaining subset of stockpile stays together, and any transfers are well-documented as described above.
- iii. Yes.

The following answers apply to material stockpiled after 12/31/2014:

- i. The point of origin would be the point at which 500 pounds or greater were aggregated after 12/31/2014, regardless of whether this material was moved again after aggregation and prior to destruction. Relocation of the material should be documented in accordance with the protocol's chain of custody requirements.
  - ii. Yes, as long as the remaining subset of stockpile stays together, and any transfers are well-documented.
  - iii. Yes.
- e) **A particular destruction facility is unable to completely evacuate the bulk tank during the destruction event, leaving a small amount of material (vapor heel) remaining, usually approximately 200 pounds. The destruction facility saves this material and adds it to the next destruction event for the OPO.**

**If the vapor heel is less than 500 pounds, may the OPO designate the destruction facility as the point of origin for that quantity, relying on the previous verification report as evidence that the material is eligible?**



In cases where a vapor heel is destroyed in a subsequent project, if the vapor heel is less than 500 pounds, the OPO may designate the destruction facility as the point of origin for the vapor heel quantity. However, if the vapor heel is equal to or greater than 500 pounds, the point of origin must be documented for the destruction event that generated the vapor heel in accordance with the requirements in Section 6.2 of the 2014 Protocol. However, the point of origin documentation does not need to go back any further than the destruction event that generated the vapor heel.

- f) Section 6.1(g) of the 2014 Protocol states that “the destruction facility must track continuously during the ODS destruction” certain performance parameters, which are listed in this section. Consider an event where, during a destruction event, the destruction facility experienced a failure of the data logging system so that all parameters were being monitored but not recorded for a period of time, and the destruction process did not shut down. The ODS Protocol does not specify a frequency at which the continuously monitored data must be recorded. How should the missing data be accounted for?**

While there are no quantitative requirements in the 2014 ODS Protocol specifying how the continuously tracked data should be recorded, there must be enough evidence for the verifier to reach reasonable assurance that these parameters were appropriately tracked during the destruction event. The issue must be described and justified in the Issues Log and Verification Report.

- g) If a facility receives a shipment of appliances which collectively contain greater than 500 pounds of eligible ODS refrigerant, would the source of the appliances be considered the point of origin or would the facility where the ODS was recovered from the appliances be considered the point of origin?**

The point of origin would be the source of the appliances if the appliances from that source collectively contain 500 pounds or more of ODS refrigerant. An appliance would be considered a container as defined in the Compliance Offset Protocol and the point of origin is the location where ODS is first aggregated with other ODS to form one shipment with an aggregate weight of 500 pounds or greater.

For example, if Company A collects old refrigerators from customers who purchase new ones, and then periodically ships the refrigerators to a Company B (a reclamation facility), Company A would be the point of origin if the refrigerators at its facility in aggregate held 500 pounds or more of the ODS destroyed as part of the project.

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- h) Consider a situation where six cylinders containing 100 pounds each of ODS refrigerant (600 pounds of material in total) are transported in one shipment to an OPO's facility. Of the total shipment, four of the cylinders (400 pounds of material) are sent for destruction as part of a compliance project, and the other two cylinders (200 pounds of material) are sent for reclamation. Would the point of origin be the source of the 600 pound shipment, or the OPO's facility?**

Only cylinders that are included in a project would be counted in determining whether or not the 500 pound threshold is met for determining the point of origin. Therefore, in the above scenario, the OPO's facility would be considered the point of origin for the 400 pounds of material destroyed in the project.

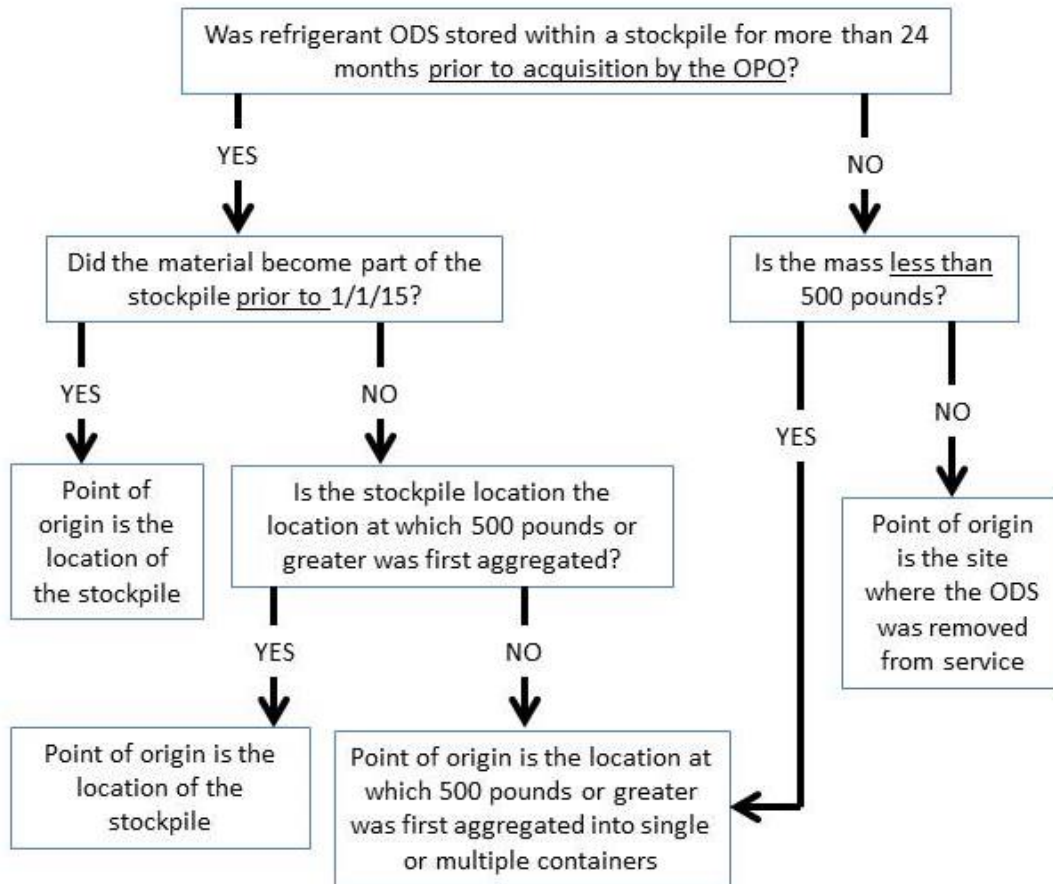
- i) Section 6.2(b)(1) includes the following language: "For refrigerant ODS which is stored within a stockpile more than 24 months prior to acquisition by the Offset Project Operator." The phrase "... prior to acquisition by ..." appears to be new to the second version of the ODS protocol. How should OPOs and VBs understand this language? If an OPO received ODS material prior to January 1, 2015 and stored it for more than 24 months, would the OPO be able to claim its own facility as the point of origin in accordance with the point of origin requirements for stockpiled material under Table 6.1 of the 2011 protocol, but not under section 6.2 of the second protocol (assuming the material was received in a quantity 500 pounds or greater)?**

This interpretation is correct. An OPO cannot claim its own facility as the point of origin under section 6.2 of the 2014 protocol if the material was received by the OPO in a quantity 500 pounds or greater (except under specific circumstances, such as, if the ODS was first removed from service from a chiller at the OPO's facility). This applies regardless of when the material became part of the stockpile.

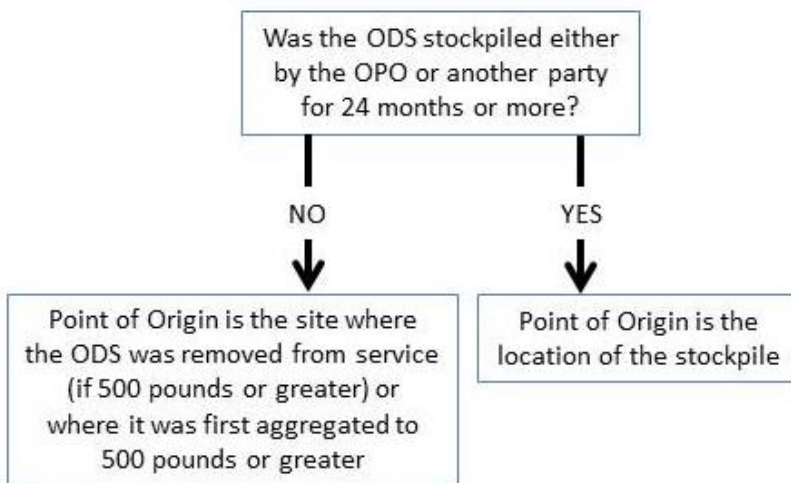
If a quantity greater than 500 pounds entered a stockpile prior to 1/1/15 and was stockpiled for two years or longer by the previous owner prior to being obtained by the OPO, then the location of the previous owner's stockpile may be considered the point of origin. However, if the material entered the stockpile after 12/31/14, then the site at which the material was first aggregated to 500 pounds or greater must be identified as the point of origin.

See the following flow chart to assist in determining point of origin under the 2014 protocol:

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Under the 2011 protocol, point of origin is determined as follows:



5. Reporting

- a) **Part V of the ODS Offset Project Data Report (1/15 version) asks for “Mass ODS (lb).” Should the mass match the weight on the Certificate of Destruction (COD) and the weight tickets, or the mass of ODS after the HBR and any other ineligible material has been excluded?**

The mass entered on the OPDR should include eligible ODS and other ineligible material, including high boiling residue (HBR), moisture, and ineligible ODS. This should match the weight on the certificate of destruction.

- b) **Section VI of the ODS OPDR (1/15 version) has fields to enter the percentages of each ODS destroyed in the project, including ODS from both refrigerant sources and foam sources. Some refrigerant projects destroy material that includes HCFC-22. However, HCFC-22 is not eligible as a refrigerant, but rather only as a foam blowing agent. Should the OPDR include only the percentages of ODS that are eligible for crediting?**

Yes. Only ODS eligible for crediting in the given project type (refrigerant or foam blowing agent) should be included in the OPDR.

- c) **For ODS projects, do the “Parties in Chain of Custody” (Part VI of the OPDR) need to be listed as “Others Involved in Project” (Part V of the Listing Form)? For example, do third party mixing and sampling and third party lab testing entities need to be listed as technical consultants or other parties with a material interest in the project?**

In general, no, although there are conceivable exceptions, such as when parties in the chain of custody are also involved in the project in another capacity such that they would be included on the listing form.

- d) **An ODS quantity greater than 500 pounds was recovered from a chiller, then transported to the recovery company’s location (different from the location the chiller was last in service), where it remained for a short time prior to being transported to the aggregation facility. Does the recovery company’s location need to be included on the OPDR as a party in the chain of custody?**

Yes, the recovery company should be listed as a party in the chain of custody if the material is in their custody. Protocol subchapter 6.1(d) requires the OPO/APD to maintain documentation on chain of custody and ownership of the ODS beginning at the point of origin until destruction.

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- e) **Prior to the commencement of destruction, a quantity of ODS stored in a single ISO container was split into four separate containers at the destruction facility. The contents of the four containers were destroyed in sequence. A separate weight was taken for each of the four containers within two days before and after destruction. A separate lab analysis was conducted on the contents of each container. The OPO is claiming this as a single destruction event, and using a weighted average of the results from the four lab analyses to calculate GHG emission reductions. Is this an acceptable approach?**

No. Appendix D(a)(4) requires each single ODS container destined for destruction to be treated as a separate destruction event.