



December 3, 2010

Elizabeth Scheehle
Research Division
California Air Resources Board
Sacramento CA

RE: *Compliance Offset Protocol for U.S. ODS Projects*

Dear Elizabeth:

EOS Climate is developing projects in the U.S. and globally for collection and destruction of ozone-depleting substances (ODS) that remain in older equipment and building infrastructure. We have pioneered ODS destruction as a verifiable emission reduction for greenhouse gas (GHG) markets, originating ISO-14064 conforming methodology, and deploying state-of-the-art technologies and creating an integrated system for collection, aggregation, processing, and destruction of ODS. This system is designed to deliver a stable supply of the highest quality GHG emission reductions for both voluntary and compliance markets. We have completed the first U.S. ODS projects under the Climate Action Reserve protocol and to date the only generator of domestic ODS CRTs.

We congratulate the California Air Resources Board (ARB) staff for its leadership and vision in assembling a comprehensive set of proposals for California to meet the AB 32 targets while containing costs, providing flexibility, and maximizing the benefits to the economy and environment. We also applaud CARB as the first government institution in the world to take effective, market-based action to address the climate threat posed by ODS banks. We are offering comments on two documents in the October 28 "Proposed Regulation to Implement The California Cap-and-Trade Program": 1) the proposed compliance offset protocol for "U.S. Ozone Depleting Substances Projects" and 2) Appendix A: Proposed Regulation.

Staff Report Clarification

On page 5 of the staff report under "Conservative Accounting", there appears to be a typo with substantive implications in the following sentence:

"The default credits range from a low of under 0.20 tonnes of CO₂E credit for each tonne of CFC-11 from building insulation to approximately 0.87 tonnes of CO₂E credit for each tonne of CFC-12 refrigerant."

It should instead read:

"The default credits range from a low of under 0.20 tonnes of CO₂E credit for each **CO₂ equivalent tonne** of CFC-11 from building insulation to approximately 0.87 tonnes of CO₂E credit for **each CO₂ equivalent tonne** of CFC-12 refrigerant."

Geographic Boundaries

Under the Climate Action Reserve program, ODS that originate either in the U.S. (under the CAR protocol for U.S. projects), or from developing countries and imported into the U.S. specifically for destruction (under the CAR “Article 5 Country” protocol) would be eligible for CRTs provided that the source of the ODS is verified as meeting the protocol’s requirements. There would be equivalent certainty regarding monitoring, permanence, additionality, and verifiability regardless of whether the project originated in the U.S. or abroad, provided that there is adherence to the protocols.

ARB’s proposal to exclude ODS from Article 5 countries would unnecessarily constrain the scope of GHG emissions that could be realized under AB 32. ARB staff expressed concern at the June workshop regarding the verifiability and enforcement of foreign-sourced material. This concern is fully addressed both in the CAR protocol and by the existing international and domestic programs that regulate movement of ODS across national borders.

Only ODS that has received an export permit from the country of origin, and that is pre-approved for import by the U.S. EPA and U.S. Customs can enter the U.S. This requires documentation on the source, composition, and ownership of the ODS, its destination and ultimate disposition in the U.S. This is in addition to the extensive documentation required by the CAR protocol on point of origin, custody and ownership, and composition. In sum, the information required for imported material is no less detailed and comprehensive than that required of ODS that originates in the U.S.

ARB is considering eligibility for other offset types located in Canada and Mexico. While we understand that ARB is not inclined to extend the ODS protocol under AB 32 beyond North America to all Article 5 countries at this point, we believe it would be consistent with the general policy to allow for projects that originate in Mexico at minimum. The geographic distance from much of Mexico to qualified U.S. destruction facilities is comparable to distances that would be covered in projects that originate in the U.S. The regulatory permitting and enforcement oversight that would apply to ODS imported from Mexico would be no less stringent compared to ODS originating in the U.S. By extending eligibility to Mexico for ODS projects, ARB would not only better insure sufficient offset supply to meet the AB 32 targets, but would also help bring the same co-benefits to Mexico as we will be creating in the U.S., e.g., job creation, promoting the transition to more advanced, environmentally superior technologies.

Exclusion of CFC-113

The CAR protocol for U.S. projects excluded CFC-113 because of questions regarding additionality. The understanding during the CAR protocol development amongst the working group was that there are negligible quantities of CFC-113 refrigerant (R-113) still in use in the U.S., and that the bulk of remaining CFC-113 banks are stockpiled for use in solvent cleaning. The concern was that CFC-113 that is used as a solvent is being destroyed in the U.S. under business as usual. The CAR protocol for Article 5 countries did include CFC-113 as an eligible refrigerant as this chemical is still in use in chillers in developing countries.

It is our experience, and those of our partners, that in fact, CFC-113 is still in use and in circulation, not as a solvent, but as refrigerant used in cooling systems. There are opportunities to collect the R-113, but as of now, the only incentive is to recycle it back into older equipment.

The U.S. EPA has not yet released data on quantities of CFC-113 destroyed in the U.S. over the past several years. Even having those data however would not allow a breakdown of the sources of the CFC-113, i.e., solvent vs. refrigerant. Based on the fact that there is continuing demand for CFC-113 refrigerant, most if not all of the CFC-113 that is being destroyed would very likely be solvent.

Like CFC-11, R-113 is used almost exclusively as a refrigerant in centrifugal chillers (RTOC, 2006; Stratus, 2008). The EPA Vintaging Model uses the same annual leak rate for R-113 as for CFC-11. Thus, to calculate the baseline emissions from recovery and resale of R-113, the same 10-year cumulative emission rate (89%) that is used for CFC-11 can be used in the protocol.

Responsible Foam Management

In Section 2.3.1 of the draft Protocol (p.5), it is stated that “ODS extracted from a foam source for use in refrigeration equipment is not considered part of this source category, and must instead be considered as a foam source.”

We believe this proposed decision does not reflect newly available technologies that change business as usual and would increase, not decrease, GHG emissions that could otherwise be prevented.

This proposal is based on the assumption that the usual practice is that ODS blowing agent will be disposed of, still entrained in the foam. In reality, the actual baseline for CFCs that are extracted from foam will also include re-sale for use as refrigerant and eventual release to the atmosphere. Since the CAR protocol was finalized, technology has continued to be deployed, in response to market demand, that extracts ODS blowing agent from foam. The extracted ODS is in pure form and technically and legally eligible for sale and use as a refrigerant. As a result, there is a new “business as usual” where the extracted ODS will be reclaimed and used to recharge older air conditioning equipment to meet demand as this would provide the highest value for the ODS.

This proposed eligibility limit makes it uneconomical to carry out destruction projects for extracted blowing agents and therefore will constrain GHG reductions and discourage implementation of innovative technologies. Rather than create an unfortunate, perverse consequence of the Protocol, we hope ARB can re-consider this before final submission to your Board.

Federal Government ODS

Also in Section 2.3.1 (p.6), it is stated that “ODS sourced from federal government installations or stockpiles is not eligible under this protocol.”

The CAR protocol made this condition based on the understanding that the policy of the U.S. Department of Defense and U.S. Customs Service was to destroy stockpiles of CFCs under their control. However, this does not apply to CFC refrigerants that are still in use in federal facilities. There is no regulatory requirement, Executive Order, or other federal policy that addresses CFC refrigerant still used in operating equipment. In fact, it has been the policy of the federal government, as administered by the U.S. EPA, to encourage continued, responsible use and recycling of ODS refrigerants to maintain the installed equipment and infrastructure. The CAR protocol should have been more precisely worded to make this distinction. Without this

correction, the federal government will be forced to incur expenses to destroy CFC refrigerant, or to continue using older, inefficient equipment, instead of being given the option of realizing short-term and long-term savings through early retirement of this older equipment and participation in projects that can generate GHG emission reduction offsets under this protocol.

Laboratory Analysis

Footnote #10 on page 29 specifies where the project developer is the destruction facility itself, a 3rd party should take samples. We recommend that similarly, if the project developer is, or operates an AHRI-certified laboratory, that a different AHRI-certified lab not affiliated with the project developer must be employed to take and analyze the samples.

Destruction Facility Requirements

Under Section 5.2.4, facilities that do not have a RCRA permit must document that their operations are consistent with the TEAP requirements. For consistency with other provisions of this proposed protocol and the general regulatory requirements under AB 32, we suggest that this demonstration be certified by a 3rd party.

Early Action Credits

Quantification Adjustment

In the Proposed Regulation Order (Appendix A), under Registration of (Early) Offset Credits by Third Parties, (Section 95990), we suggest that there be provision added so that ARB can make adjustments as needed to the credits that have been issued by an approved third-party offset program. For example, the proposed ODS protocol uses GWPs for HFCs from IPCC's Second Assessment Report, which are slightly different from those used in the CAR protocol. To ensure internal consistency, ARB will need to re-calculate CRTs previously issued by CAR which have not yet been retired and which qualify under the AB 32 protocol.

Verification

It is unclear in Section 95990 and in the conflict of interest provisions (e.g., Section 95979(b)(4)) if offset credits registered with a third party offset program can be or cannot be verified by the same verification body that originally verified the project under the third party program.

In sum, ARB's proposed listing of ODS destruction as a compliance offset will prevent GHG emissions not only in the U.S., but also around the world. The projects and technology developments that will be mobilized in this country will showcase for the international community a way to manage ODS banks by leveraging carbon finance and help accelerate a transition to more efficient, climate-friendly replacement technologies, resulting in even greater environmental benefits. We appreciate the opportunity to provide additional input and look forward to working with ARB and its stakeholders to implement AB 32.

Sincerely,

Jeff Cohen
Senior Vice President, Science & Policy