

**Comments of the Automotive Refrigeration Products Institute  
to the California Air Resources Board Regarding Regulations to Achieve  
Greenhouse Gas Emission Reductions from Small Containers of Automotive  
Refrigerant**

*Submitted 17-December-2008*

The Automotive Refrigeration Products Institute appreciates having the continuing opportunity to work cooperatively with the California Air Resources Board to develop CARB's HFC emissions reduction plan.

We submit these formal comments to record issues of continued differences in understanding contained in the documents associated with the Notice of Public Hearing to Consider the Adoption of a Proposed Regulation for Small Containers of Automotive Refrigerant.

While there are peripheral issues that industry and CARB staff may never fully agree on, it is notable that ARPI and CARB's Research Division have worked cooperatively for more than two years and compromised mutually to craft proactive, effective, affordable solutions to mitigate climate change impacts attributed to motor vehicle air conditioning products. This work has yielded a workable AB32 regulation, providing real emissions reductions and, at the same time, not disadvantaging low income Californians.

We are proud to have set a cooperative example for other industry groups to follow and look forward to supporting the adoption by the Board of the proposed regulation in question. We further look forward to supporting the efforts of the Executive Officer in successfully implementing these measures.

This work has not been easy, nor will it be achieved without significant cost to our industry. The proposed regulation resulting from our cooperative efforts includes:

- An industry-first, self-administered small-container return/recovery/recycling program with economic incentives for consumers to return used containers for processing.
- Development and commercialization of an industry-first self-sealing valve to mitigate accidental and installation emissions of refrigerant from small containers.
- A California-specific consumer education campaign, including print and website.

ARPI supports these measures as a balanced plan that we hope will prove cost-effective to reduce greenhouse gas emissions from the HFC sector and appreciates playing a meaningful role in helping the state achieve its policy goals for reducing GHG emissions as participants in the early action rulemaking process for Reduction of Refrigerant Emissions from Non-Professional Servicing of Motor Vehicles.

## STAFF REPORT: INITIAL STATEMENT OF REASONS FOR PROPOSED RULEMAKING

Like the preceding staff "White Paper", the tone of the draft "Staff Report" remains antagonistic toward the person who works on their own vehicle. We continue to dispute some of the figures cited in the Report such as a 22% can heel; only 5% of cans sold to professionals, 1.4million vehicles receive charges an average of once per year and we maintain the objections we have raised in the past. Nevertheless, we believe the Staff Report presents a generally fair statement of the underlying issue and makes a good argument for adoption of what CARB calls "the alternate proposal".

The report also does not fully recognize that alternative refrigerants will soon be commercially available, rendering this a short term program with limited benefits and great complexity, particularly in the cost / benefit of its recycling component which should remain subject to continued review and sunset of it or its provisions. However, **Page 13, V. PROPOSED REGULATORY PROVISIONS, Section A, paragraph 3, lines 8 – 9** refers to the coming "switch to a refrigerant with a GWP of 150 (and) an 88-percent reduction in carbon dioxide equivalent..." The referenced "switch" is not speculative but a certainty, except the GWP value will likely be far lower than 150. The only uncertainty is the immediacy of the switch.

- **Page ES-3, Emission Reductions and Costs, line 2 / Page 2, I. OVERVIEW AND STAFF RECOMMENDATION, paragraph 8, line 2 / Page 24, IX, Section A paragraph 1, lines 6-9 / Page 30 IX Section D, Subsection 3, Paragraph 2, lines 3-4** all refer and break down emissions as resulting from 95% apportionment of small can use by DIY users and 5% professionals. Reference is attributed to "MACS 2008; Atkinson, 2008a.

However, in the Staff White Paper, revision of July 14, 2008, drafted to make the case for the rulemaking, CARB Staff had compromised to an 83% DIY apportionment based on significant prior discussion with and presentation of point-of-sale data and research inputs from ARPI.

ARPI maintained, and CARB staff acknowledged our argument that the Atkinson/MACS report was based on a small, select sampling of MACS members representing commercial interests in competition with the DIY sector's business. This small sample of specialty professional shops were not reflective of overall professional small can use and excluded smaller, general repair proprietorships. ARPI argued that the comparative use of cans and cylinders by A/C specialist shops was far different than actual National Parts Retailers' sales data from 17,000 retail stores that formed the basis for the ARPI's 26% retailers' sales to commercial accounts and resulted in CARB's compromising to blend the two to 17%.

We question why such large-sample research inputs were factored and then discarded in favor of anecdotal, small-sample survey data from a competing commercial special-interest group.

- **Page 17, Table 1. Proposed Schedule of Recycling and Reporting:** The timing phases of this table's reporting requirements are inconsistent with previous discussions about using a calendar year rather than a September 30 fiscal year for reporting and target recycling rate purposes. Additionally, the increase in return/recycling threshold from 90% to 95% is not consistent with prior discussion and this document's **Executive Summary, Page ES-4, Implementation Timeline and Enforcement, lines 5-6** which states "The target recycle rate is initially set at 90% and rises to 95% beginning January 1, 2012".

***The table and reporting dates should be updated to reflect agreed upon use of calendar year for reporting and target recycling rate purposes and January 1, 2012 for the increase in the target recycling rate to 95%.***

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## **Appendix A / Proposed Regulatory Language**

### ***General Observations / Recommendations:***

- **Section 95361. Definitions, page A-4, (23):** The regulation has now deleted the definition of "small container". Even though the regulation defines "Automotive Refrigerant in a Small Container" as "automotive refrigerant packaged in a container holding more than 2 ounces and less than 2 pounds of automotive refrigerant by weight", the lack of a separate definition for the "small container" itself may cause confusion due to this being a common reference. For instance, the **Certification Procedures** (Appendix B) and the **Test Procedure for Leaks from Small Containers of Automotive Refrigerant / TP-503** (Appendix C) refer repeatedly "small containers" without formal definition, instead referring to the regulation for the definition.

***This definition should be put back in.***

- **Section 95367. Recycling Reporting Requirements, pages A-9 and 10, (a) and (c):** The timing of return/recycling reporting and possible increases to deposits has been discussed and understood as being at calendar-year, two-year increments. Additionally, the program's January 1, 2010 planned inception lends itself to a January – December reporting cycle. This misunderstanding is similar to that profiled in the prior document, where Staff Report's **Executive Summary, Page ES-4, Implementation Timeline and Enforcement, lines 5-6** states "The target recycle rate is initially set at 90% and rises to 95% beginning January 1, 2012."

***The reporting periods should all be 12 month periods commencing on January 1, 2010. The commencement and ending dates in paragraphs (a) and (c) should be changed accordingly and the summary report date should be changed to March 1<sup>st</sup> of the following calendar year.***

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**Appendix B / Proposed Certification Procedures”;**

**General Observations / Recommendations:**

- **Page B-5, Section 2. CERTIFICATION REQUIREMENTS, Subsection 2.4 Education Requirement (A) (4):** We again ask for the removal of the phrase “due to lack of professional diagnostic techniques”. As asserted before, professionals, like DIYers are subject to overcharge and undercharge, depending on their level of attention to detail and experience. It is sufficient to educate about the risks of over/undercharging and provide instruction on how best to do neither. The rest of the statement is unnecessary.  
***ARPI members understand the spirit of this phrase and, in all educational materials, have made specific reference to seeking professional A/C service for major or recurring problems.***
  - **Page B-6, Section 3. SUBMITTING AN APPLICATION; Subsections 3.2 and 3.4:** ARB and ARPI have agreed that engineering drawings and testing results for product groups of like construction and/or chemistry may share common submittal reporting documentation as part of the individual SKU application / certification process.  
***An appropriate reference defining this important detail should be included in Subsections 3.2 and 3.4, or the entire section may be footnoted appropriately.***
  - **Page B-6, Section 3. SUBMITTING AN APPLICATION; Subsection 3.3:** A deferral or artwork submission option should be included in the certification provision requiring “A sample of the small container of automotive refrigerant. Finished goods are not customarily available to ship at the time of SKU planning and may not actually be produced until a customer purchase order initiates such. Submittal may be made in arrears, along with PDF submittal of artwork at the time of SKU certification / application.  
***Please include such a deferral or artwork submission option in subsection 3.3, or footnote the section appropriately.***
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**Appendix C / Test Procedure for Leaks from Small Containers of Automotive Refrigerant TP – 503**

*General Observations / Recommendations:*

We appreciate the cooperation and flexibility of CARB Staff, particularly Dr. John Collins, for working with ARPI to arrive at a procedure that has commercial testing “roots” and prior usage history with aerosol valves used in the domestic consumer products industry.

ARPI is on record as being generally comfortable with this new procedure because of industry’s history with similar testing protocol. However, we must also note that TP-503 is a new procedure and has not yet been run in its entirety. As such and as a relative unknown, we are not yet able to be completely comfortable with the new procedure.

Dr. Collins has recognized and considered our discomfort, particularly with the possible ramifications of assigning equal statistical weighting to upright and inverted test cans and has expressed to us that the test procedure will be one from which we will all learn.

We thank Dr. Collins for his candor and recognition that together, in his words: “we should consider simplifying the test method at some point in the future as we gain experience with the cans”.

- **Page C-4, Section 7. CAN PREPARATION; 7.5 and Section 8. CAN WEIGHING; 8.3:** We wish to note that, in the process of discharging cans to half-full content, there will be substantial condensation on subject cans. Four hours of equilibration time may not be sufficient to relieve all cans of all additional condensation weight at higher ambient room humidity levels.  
***We ask for close observation and adjustment, as necessary.***
  - **Page C-6 & 7, Section 9. CALCULATIONS:** no longer include standard deviation formulae.  
***We do not know if this was an intentional or unintentional deletion. We’d like CARB to confirm and, if intentional, explain why standard deviation is no longer a consideration.***
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## **Appendix E / "Examples of Labeling and Educational Materials";**

### *General Observations / Recommendations:*

ARPI notes that, in advance of the January 22, 2009 Board Hearing, ARPI will furnish CARB with presentation-quality updates and samples of the following materials:

- Labeled "sample" cans and PDF file of one automotive refrigerant SKU (EF Products #340), mocked-up to include all certification-required copy. The cans will be furnished filled and equipped with self-sealing valves.
- Mock-ups and PDF file of sample tri-fold consumer educational brochure.
- Mock-ups and PDF file of updated, bi-lingual sample display placard.

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## **Appendix G / Technical Support Document**

**Concluding Commentary:** In general, ARPI's previously expressed concerns about "Staff Report" also apply to this "Technical Support Document". Despite our wishing there were a less "anti-DIY" tone and our continued disagreement with selected assumptions (22% can heel; only 5% of cans sold to professionals, 1.4million vehicles receiving recharges once or more per year) and, without conceding any other objections we have raised in the past, the Staff Report and its Technical Support Document present a generally fair statement of the underlying issue and support adoption of this proposed regulatory package.

While industry and CARB will never fully agree on every detail, we believe our working relationship has yielded a workable regulation, providing real emissions reductions and, at the same time, not disadvantaging low income Californians.

We are proud to have set a cooperative example for other industry groups to follow and look forward to showing support for the measure at the upcoming January 22, 2009 Board Meeting. We further look forward to supporting the efforts of the Executive Officer in successfully implementing these measures.

### *Observations / Recommendations:*

- **Page G-5, Section 2 METHODS, 2.2 Staff Proposal, 2.2.2 Emissions:** ARPI supports staff's inclusion of support for identifying and repairing leaky MVAC systems via the **smog check program**.

End of document.