



November 30, 2009

Mary Nichols  
Chairman, California Air Resources Board  
1001 I Street  
Sacramento, CA 95812

Chair Nichols,

Please accept this letter of support for the Air Resources Board's Refrigerant Management Program (RMP) regulation. As an important first step to reducing emissions of gases with high global warming potential values, this regulation will bring the state a considerable distance towards achieving the targets established by AB 32.

Environmental Defense Fund supports the RMP as an essential component of the AB 32 Scoping Plan. Without a program to reduce leaking refrigerants, the emission rate of these gases is expected to triple between 2004 and 2020, becoming 8% of the total statewide greenhouse gas inventory. As mentioned in the Executive Summary of the ISOR, this single regulation is the sixth largest reduction listed in the Scoping Plan. In addition to emissions reductions, the RMP also facilitates dramatic cost savings for California businesses, creating an important win-win for the state. For example, the RMP will reduce an estimated 8 mmtCO<sub>2</sub>e in 2020 and will save business owners \$2 per ton reduced.

Although the Air Board will achieve a significant environmental victory by adopting the RMP as proposed, Environmental Defense Fund recommends the board consider three significant issues associated with the State's overall approach. The first issue is a recommendation for revision of the rule, eliminating the staggered implementation of the RMP, and is meant to improve the performance of the rule as written. The second and third issues are resource and policy needs that will ensure effective rule implementation and future technology innovation.

1. **CARB should speed up implementation of the RMP registration and reporting requirements by eliminating the staggered deadlines**

As way of background, the regulation currently uses a staggered implementation timeline to require facility registration and leak repair reporting. Under the proposed framework, medium and small facilities will register with the state in 2014 and 2016 respectively, leaving only the largest systems to register in 2012. Medium sources will report leaks and repairs to CARB starting in 2014, leaving only large facilities to report leaks and repairs in 2012. Small facilities never have to report leaks and repairs. While this staggered implementation schedule allows for a phased in approach to the rule, it unnecessarily limits the reductions achievable by the rule and reduces the information available to state agencies for enforcement and development of new standards to drive installation of new cutting edge units in California.

**Staggered implementation opens the door for high non-compliance rate between 2011 and 2016.** By allowing medium and small units to delay facility registration (and leak repair reporting for medium units) CARB is essentially allowing medium and small facilities off the hook for regulatory compliance until 2014 and 2016. This lack of oversight by the state, and required dialogue between the regulated community and state enforcement officers, opens the door for significant non-compliance with the leak

check and repair provisions which make up the core of the RMP program. Without system registration, the state has no way to know what refrigeration systems are currently in use and which need to be checked for leaks and subsequently repaired. As an example of the level of non-compliance possible for this sector, in 2004 the South Coast AQMD audited their Rule 1415 for compliance rate. Rule 1415 is a refrigerant use reporting rule similar to the currently proposed RMP. Though it went into effect in 1991, compliance with the reporting requirement in 2004 averaged between just 15 and 20%. Further, of facilities reporting to the District, an average annual leak rate between 20 and 30% was discovered (compared to a target leak rate of 8 – 10%).

As the South Coast AQMD Rule 1415 data shows, without a strong compliance and enforcement mechanism, anticipated reductions from a refrigerant program may not materialize. An honest assessment of the currently proposed CARB program tends to forecast a similar result since no registration with the state until 2014 and 2106 is required. Further, with the staggered approach, no enforcement is proposed for the first several years. As such, under the current design, CARB should expect that medium and small units in the pre-registration years 2011-2015 will under-achieve the potential reductions that would otherwise be driven by earlier registration and reporting. Of course, CARB can reduce some of the potential for high-noncompliance with a vigorous and involved public outreach and education campaign, although this approach is sub-optimal.

**Staggered implementation may prove costly for future rule development efforts.** In addition to undermining the compliance rate (and emissions reductions) of the RMP, the staggered registration and leak repair reporting requirements also reduce the availability of data for use in new standards under development at the California Energy Commission and elsewhere. For CEC, although the agency has stated that the Title 24 rulemaking slated for completion in 2012 will encompass only large units, having data from in-use medium units will inform the research and rulemaking agenda necessary to establish a link between the global warming potential of the gas used and the energy use of the refrigeration system. In addition, as CARB develops its next regulatory approach to reduce emissions from the refrigeration sector, information developed through the registration and reporting provisions (unit types, unit ages, service types, extent of use of particular units, common refrigerant charge sizes and rates, leak points, etc) will be invaluable for creating a well-rounded, transformative regulatory approach.

**Accelerated facility registration and reporting will save California businesses money and reduce emissions faster.** Environmental Defense Fund calculates potential statewide savings of 2 million dollars and 320,000 tons of carbon dioxide if the staggered reporting and registration provisions are eliminated. These savings are derived from the fact that compliance with the rule results in emissions reductions at the individual facility level, resulting in 9 dollars savings and almost one ton of carbon dioxide savings for each avoided pound of fugitive refrigerant emissions. Similarly, by retaining the staggered approach, but allowing for only 1 year of delayed registration and reporting, statewide savings of 1 million dollars and 160,000 tons of carbon dioxide are possible.

**Modern IT systems can and should allow CARB to develop an easy-to-use online reporting tool by 2012 that can accommodate all facilities covered by the regulation.** As far as the administrative burden associated with speeding up the timeline implementation of the RMP, EDF asserts that CARB can and should allow for medium and small source facility registration in 2012 without creating an undue burden on state resources or personnel. By developing an online, easy-to-use registration tool (similar to that developed for either the off-road truck rule or GHG mandatory reporting regulation, and as identified in the ISOR) CARB will allow system operators to easily and quickly report their equipment characteristics, and will also auto-populate important data tables housed at the agency. With modern computing, such tables can easily be queried and sorted for data analysis and automatic analytical report compilation. This tool, in addition to identifying the distribution of refrigeration systems in place throughout the state, will

encourage increased compliance and information dissemination throughout the state by actively requiring regulated facilities to interact with the Board and local enforcement agencies. Further, if CARB has the IT capabilities ready to go in 2012, this program can interact with facility refrigerant management software to automatically populate facility information into state databases.

**CARB has precedent for speeding up regulation implementation.** In December 2007 CARB considered the mandatory reporting rule for stationary sources in California. During public comment for the regulation, EDF and other environmental organizations urged the CARB board to speed up the proposed implementation date for the regulation by one year instead of delaying facility reporting until 2009. One supporting reason for moving the regulation up in time was to support the development of future regulations, including a cap-and-trade program. Similar to that situation, CARB here should move up the implementation date of the RMP to pave the way for future regulatory development (as proposed in the AB 32 scoping plan) and also for effective enforcement of the leak check and repair provisions.

In sum, delaying registration and reporting will severely limit CARB's understanding of the high-GWP inventory and leak rates, and will undermine the environmental effectiveness of the program. CARB should set an aggressive course to launching the online tool and require all facilities to begin reporting in 2012 to maximize compliance and secure environmental benefits sooner. EDF therefore urges the CARB board to modify the proposed regulation and make the registration timetable for facilities with medium and small systems to coincide with the 2012 deadline for facilities with large systems. Similarly, medium facilities should report leak repairs starting in 2012 just as large systems have to.

2. **California should ultimately adopt a comprehensive, technology stimulating effort to fundamentally alter the use of climate forcing refrigerants**

Although a leak check and repair program is a good first step, this type of emissions reduction approach is insufficient on its own to achieve the kind of reductions necessary to transform the high-GWP sector and attain overall climate goals. After all, approximately 8MMT CO<sub>2</sub>eq will still be emitted from the refrigeration sector after full implementation of the rule is achieved. Chasing down leaks across thousands of businesses is an imperfect solution that will only slow the growing emissions from stationary refrigeration. Eventually, California must devise solutions that will eliminate the need to use these dangerous pollutants in the first place by catalyzing the transition to climate-friendly alternatives.

As stated above, EDF believes the RMP regulation is a step in the right direction, but must be coupled with incentives for technology innovation and other market-based mechanisms to create a market signal that rewards transformative technology adoption. Such a program should eventually lead to a societal shift in the use of refrigerants toward non-High GWP substances. To advance this process, CARB should continue to explore other programs, including, but not limited to, market based instruments, deposit and refund programs, monetary fees, performance standards, loan funds and state subsidized research to demonstrate and scale up low-GWP systems.

3. **CARB must couple the RMP with a strong public outreach campaign, funded enforcement program and strong worker training regime**

For the RMP to achieve the reductions planned, California businesses of various sizes and levels of sophistication must become aware of various provisions of the rule, secure the services of professionally trained inspection and maintenance personnel, and comply with reporting and operational requirements. However, since many of these businesses have not been subject to regulatory provisions such as the RMP,

a significant compliance assistance and regulatory oversight program is required. Further, to accomplish the goals of the RMP, both CARB and local agencies will need resources to train agency staff and maintain a lasting general business awareness campaign. In addition, CARB will need to ensure adequate training and oversight of refrigerant system maintenance contractors is present.

Taken as a package, the components of an effective RMP listed above will require significant staff support at CARB and the local air districts. As written, the RMP will take in new revenue in the form of fees on large and medium sized units. Further, future penalty fees may be taken in to support the enforcement of the program. Environmental Defense Fund recommends CARB ensure that whatever fee is assessed be sufficient to fund the staff and time necessary to carry out each of these important program components, not letting any one fall away. While each may be complementary to one another, without a well-rounded public effort, training regime, and enforcement program, the RMP will not achieve the reductions planned. Additionally, by ensuring maximum reductions are achieved, CARB will also ensure the state receive the benefit of overall cost savings attributed to the rule.

Thank you for your consideration of the above comments. We look forward to working with CARB in the next phase of implementation and to provide additional solutions to reducing emissions from this sector.

Sincerely,



Timothy J. O'Connor  
Attorney  
Environmental Defense Fund



John Motsinger  
Program Analyst  
Environmental Defense Fund