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Ms. Catherine E. Witherspoon
Executive Officer, Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Notice of Public Hearing to Consider Amendments to the Control Measure for Perchloroethylene (Perc) Dry Cleaning Operations and Adoption of Requirements for Manufacturers and Distributors of Perchloroethylene.

Dear Ms. Witherspoon:

This letter transmits comments prepared by Sierra Research on behalf of the Northern California Korean Dry-cleaners Association regarding the above captioned rulemaking as well as a proposed regulatory alternative. The regulatory alternative described below is intended to mitigate the economic impacts of the proposed regulations on lower revenue dry-cleaners given the lack of available financial incentives, low-interest loans or other means to defray the costs of compliance. We request at a minimum, that the Board defer action on the aspects of the proposed regulations targeted by the proposed alternative and direct staff to analyze the proposed alternative and work with the affected industry to adjust and improve the alternative before returning to the Board with a complete regulatory proposal.

The proposed regulatory alternative can be summarized as follows:

- The purchase and installation of new Perc machines would be prohibited as of 1/1/2008 as under the staff proposal.

- Converted Perc machines would be required to be removed from service by July 1, 2010 as under the staff proposal.

- Provides regulatory certainty that non-Perc dry-cleaning equipment that uses hydrocarbon solvents, GreenEarth, Rynex or other alternatives that are purchased as replacements for Perc machines can be operated until the end of their useful lives even if CARB or local air quality management districts later choose to impose new regulations that would limit the use of these solvents.

- Provides additional lead-time for elimination of other Perc machines operated by existing dry-cleaners with current annual revenues below the industry average of $250,000 by allowing use of Perc machines until January 1, 2020 or until they reach 15 years of age, whichever occurs later.

In addition, it is requested that the Board direct staff to work with the legislature, the affected industry and other interested parties to identify and/or develop economic incentives for the replacement of Perc machines by alternatives of all types including hydrocarbon based systems and once such incentives are in place to return to the Board with a proposal for reconsideration of the need for the extended lead time for low revenue dry cleaning operations.

The rationale for the proposed regulatory alternative is described in detail below in light of the following comments regarding the staff proposal.

COMMENTS

1. **<u>The Initial Statement of Reasons Fails to Adequately Address the Economic Impacts of the Staff Proposal on Low Revenue Dry-Cleaning Operations.</u>**

The ISOR[1] indicates that while all dry-cleaners are what would generally be referred to as small businesses, they span a wide range of size in terms of number of employees and annual revenues. For example, 50% of dry-cleaners have two or fewer employees and 40% have gross sales less than $100,000 per year. On the other hand, some dry-cleaners have more than $500,000 per year in gross sales. Obviously, the smaller the scale of the dry-cleaning operation, the greater the overall economic impact the proposed regulations will have on that operation.

The economic analysis presented in the ISOR is based on what is referred to as a "typical dry cleaner" with gross sales of "about $250,000 per year". While no figure showing the distribution of revenues from dry-cleaners is presented in the ISOR, the fact that 40% of facilities have less than $100,000 in sales per year indicates that the distribution is not normal and the average is obviously skewed by a small percentage of dry-cleaners with high annual sales revenues. Therefore, it is highly likely that the economic analysis in the ISOR does not accurately reflect the impacts on smaller dry-cleaning operations and that the impacts on those smaller operations may be grossly underestimated. The lack of an appropriate analysis of the economic impacts on small businesses must be remedied before this regulation can be adopted. Clearly, the ISOR finding[2] that:

> *It is possible that some marginal dry cleaning businesses may not have the capital necessary to comply with the proposed amendments and may elect to close…*

is not supported by the ISOR analysis, unless "marginal" means the 40 to 50% of existing dry-cleaning operations which have annual revenues of $100,000 or less and/or employ two people or less.

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[1] See ISOR, pages ES-4, VII-6.
[2] See ISOR, page VII-18

It also appears that the above conclusion is based on the unsupported assumption that all dry-cleaners will be able to pass the cost of compliance with proposed regulations onto consumers as elsewhere[3] the staff report admits that if this is not the case there may be "significant adverse economic impact" on dry-cleaners.

In addition to the above, there are additional flaws in the staff's economic analysis. The most significant of these are: 1) the estimation and assumption of a uniform life of just 15 years for all Perc machines in the economic analysis[4] rather than a distribution of lifetimes that reflects the actual lifetimes for such equipment which the ISOR indicates continues beyond 15 years[5]; and 2) the assumption that only dry-cleaners in co-residential locations will suffer costs associated with the loss of useful life of Perc equipment[6] despite the requirement that all Perc equipment be removed from service 15 years after their date of manufacturer.[7]

2. **<u>The Initial Statement of Reasons Fails to Evaluate the Economic Impacts of All Three of the Identified Regulatory Alternatives</u>**

The ISOR lists three regulatory alternatives[8] which are:

1. Total Phase Out of Perc and New VOC-Containing Systems;
2. Increase the Phase Out Period;
3. Decrease the Phase Out Period; and
4. Total Phase Out of Perc and Require Add-on Secondary Control for Primary Control Machines.

Despite the fact that three alternatives are identified and the ISOR states that alternative 2 "would lessen the economic burden on the dry cleaning facility owners" the economic impacts of this alternative were never computed or compared to the staff proposal or alternatives 1 and 4. That this is in fact the case can clearly be seen on pages VII-24 to VII-26 of the ISOR. Further the ISOR provides no explanation as to why the cost-effectiveness of the alternative increasing the phase out period was not evaluated.

3. **<u>The Initial Statement of Reasons Fails to Consider the Economic Impacts of Any Regulatory Alternatives for Existing Low-Revenue Dry-cleaners that Could Mitigate Adverse Economic Impacts</u>.**

As noted above, the ISOR fails to analyze either emission or economic impacts of a regulatory alternative such as that proposed here for low-revenue dry-cleaners which we believe can be defined as those with annual sales revenues of less than $250,000 average identified in the ISOR. Therefore, the staff has no basis upon which to reject the alternative proposed for such businesses in these comments. At a minimum, the staff needs to be directed by the Board to review the proposed

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[3] See ISOR, page VII-22
[4] See ISOR, page VII-1.
[5] See ISOR, page VII-16.
[6] See ISOR, page VII-10.
[7] See ISOR, page VII-2.
[8] See ISOR, Page II-9 and II-10.

regulatory alternative for low-revenue dry-cleaners with revenues of less than $250,000 in combination with its proposal for larger dry-cleaning operations and demonstrate that the public health benefits of the original staff proposal if any outweigh the economic benefits of the alternative to small dry-cleaners.

4. **The Staff Has Not Identified Any Meaningful Ways to Minimize the Compliance Costs or Financial Assistance Programs.**

As noted in the ISOR,[9] at the May 25, 2006 hearing, the Board directed the staff to consider the proposed cost impacts of a regulation that phases out Perc from dry-cleaning and the means to minimize those impacts through financial assistance programs. While the current staff proposal would achieve the phase-out of Perc, staff has not performed any meaningful analysis of ways to reduce the cost impacts, such as special regulatory provisions for low revenue dry-cleaners nor has the staff identified any meaningful financial incentives to offset compliance costs. The only financial incentives identified[10] are $10,000 grants available for either wet-cleaning or carbon dioxide systems. As discussed above, the ISOR contains nothing that suggests that wet-cleaning is a technically feasible or legal means of cleaning garments labeled "dry-clean only" and even the ISOR indicates that the $138,000 incremental cost of a carbon dioxide system relative to a Perc machine with secondary controls will not be offset to any appreciable degree by a $10,000 grant.[11]

It is not at all clear, how the staff arrives at the conclusion that the 40% of dry-cleaners with annual revenues of less than $100,000 will be able to afford the $70,000 capital cost of a hydrocarbon machine or even recover the incremental cost of $18,500 to 24,500.[12] Clearly, the turnover of Perc dry-cleaning machines would be greatly facilitated by the availability of significant financial incentives. Until such time that those incentives are available, however, the proposed regulations and any regulation that requires the accelerated retirement of Perc machines will not be economically feasible for low revenue dry-cleaners, such as those with annual sales revenues of less than the industry average of $250,000.

5. **The Proposed Regulations Provide No Certainty that Dry-cleaners Switching to Non-PERC Technologies Will be Able to Recover Their Investment Before Additional Burdens are Imposed on Them by New CARB Regulations.**

As shown in Table ES-2 of the ISOR, the most economically viable alternatives to Perc based dry-cleaning are hydrocarbon systems. At present, systems of this type account for 76% of the non-Perc market according to the ISOR (hydrocarbons + others) and account for the majority of "non-toxic" dry-cleaning systems in operation in southern California[13]. However, the ISOR indicates that the Board may also act to ban these types of systems.

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[9] See ISOR, page I-2.
[10] See ISOR, pages, I-3, VII-14
[11] See ISOR Table VII-10.
[12] See ISOR Table VII-3.
[13] See http://www.aqmd.gov/prdas/nontoxiccleaners120605.pdf

A ban on hydrocarbon systems is inappropriate and renders compliance with the proposed ATCM for Perc infeasible for technical and economic reasons. First, much of the analysis justifying the technical and economic feasibility of the proposed Perc ATCM relies on the availability of hydrocarbon-based equipment. Secondly, the ISOR contains no analysis of the economic impact that a concurrent ban of hydrocarbon-based equipment would have on both compliance with the Perc ATCM as well as on dry-cleaners that have recently purchased such systems.

Although the ISOR discusses other alternatives, none has been demonstrated to be technically and economically feasible as a means of complying with either the Perc ATCM or a ban on hydrocarbon systems. For example, the ISOR does not demonstrate the technical feasibility of water based cleaning systems. Further, the ISOR provides no legal analysis or opinion that suggests that wet-cleaning garments labeled "dry-clean only" is legal or that cleaners have any means of avoiding liability for performing such an action. In addition, as is well documented in the ISOR, carbon dioxide systems are prohibitively expensive for the majority of the small businesses involved in dry-cleaning and in particular those low revenue operations with annual sales revenues of $250,000 or less. Finally, the ISOR indicates that the toxicity of the methyl-siloxane solvent used in GreenEarth is currently being investigated.

Given the fact that, for low revenue dry-cleaners, hydrocarbon-based systems are the best alternative to Perc based systems from a technical and economic perspective, it is likely that many such cleaners will invest in hydrocarbon systems. At present, however, the proposed regulations do not include any safeguards to ensure that dry-cleaners switching to hydrocarbon systems will be allowed to operate them long enough to recovery their investment costs. Therefore, a modification to the regulatory language is required which would guarantee that CARB will allow hydrocarbon dry-cleaning machines purchased prior to the adoption of any regulation restricting their use be allowed to be operated by dry-cleaners until they are retired from service due to normal attrition.

6. **<u>The Initial Statement of Reasons Fails to Demonstrate the Need for the Implementation Schedule Incorporated into the Staff Proposal Relative to Alternative Schedules that Would Have Lesser Impacts on Small Businesses Engaged in Dry-cleaning</u>**.

As shown in Figure III-8, monitored levels of Perc in California's atmosphere have declined dramatically since 1989 and there has been a commensurate decrease in the health threat posed by the use of PERC in dry-cleaning and other operations. However, CARB staff still contends, based on the data shown in Table ES-4 of the ISOR, that the risk due to exposure to Perc from dry-cleaning operations is unacceptable.

Although noted in the footnotes to Table ES-4, the text of the ISOR fails to note that the potential risks shown in the Table ES-4 are worst case, in that they assume "high-end" rather than average Perc emission rates where the high end emission rates are roughly double the average emission rates. This fact alone results in risks that are twice as high as the average risk. In addition, the data are based on the 80th percentile breathing rate rather than the average breathing rate, a fact that again overstates the risk associated with exposure to Perc from dry-cleaners. While additional data for lower breathing rates are presented in Appendix B, all data were computed using the "high-end" emission Perc rates that overstate actual Perc emissions at almost all dry-cleaning facilities.

Despite the fact that the risk due to exposure to Perc from any single dry-cleaning facility depends both on the amount of Perc used by that facility as well as the fraction emitted, the ISOR analysis of risk is based only on average Perc usage rates for all dry-cleaners. In reality, the amount of Perc used is likely to depend directly on the annual sales revenues of a given dry-cleaner, with lower sales being directly correlated with lower Perc use and therefore lower associated risk. By failing to estimate risk as a function of the cleaning activity at dry-cleaning operations, the ISOR suggests that the risk is the same for all operations, and likely overestimates the risk associated with Perc use at low revenue dry-cleaning operations.

In addition, modeled results using Anaheim met data are sharply higher than the results for the other met sets, probably because they are using the non-default NOCALMS option for that run alone. NOCALMS is recommended by South Coast Air Quality Management District (SCAQMD) for routine air permit modeling, and defeats EPA's method of compensating for the presence of zero hourly wind speed on the calculation of long-term averages. The use of NOCALMS generally leads to higher modeled maxima than if default control parameters are used. CARB is under no obligation to follow SCAQMD-specific guidance, however, particularly in a comparative exercise like this, where all control parameters should be uniform among the runs. Therefore, it would be advisable to disregard the Anaheim results in favor of the other results, which are all quite similar to each other, or to remodel Anaheim without the use of NOCALMS.

The ISOR does not justify the need for the proposed implementation schedule for the Perc-ATCM in light of the exposure data relative to other, longer implementation schedules in general or for low-revenue dry-cleaners in particular. Further, the ISOR does not analyze the risk from allowing continued use of Perc at low revenue dry-cleaners under the proposed regulatory alternative. Therefore, no cost-benefit analysis can be performed with respect to variations in the implementation schedule or of the regulatory alternative for dry-cleaners with low revenues that are less than the industry average of $250,000.

7. **The Staff Proposal Presented to the Board at the May 25, 2006 Public Hearing Has Not Been Reanalyzed in Light of the New Data Presented in the Initial Statement of Reasons Nor is it Included As An Alternative to the Current Staff Proposal.**

At the May 2006 public hearing for item 06-5-2, staff proposed regulations that would not ban the use of Perc in dry-cleaning operations. The staff at that time recommended that the Board adopt a Perc-ATCM that did not ban Perc use.

However, the current ISOR considers no alternative that would allow continued Perc use and contains no analysis demonstrating that the currently proposed regulations or any alternative which bans Perc, would be superior in terms of protecting public health, reducing the cost of compliance, or reducing the impact of the regulations on small businesses than an alternative that allows for some continued use of Perc.

Proposed Regulatory Alternative

As the above comments indicate, the impacts of the staff proposal on low-revenue dry-cleaning operations with annual sales revenues below the $250,000 "average" used in ISOR have not been properly analyzed and those impacts that have been identified based on this average revenue would be greatly magnified for those operations with low revenue operations. Therefore, it would seem to be reasonable that a regulatory alternative that would mitigate the economic impacts on low revenue dry-cleaning operations be considered. Such an alternative, the costs and benefits of which have not been evaluated to date by CARB and which cannot be evaluated based on the ISOR is proposed here.

First, as noted above, the regulatory alternative would apply only to those dry-cleaning operations with low annual revenues. It is recommended that low-revenue operations be defined as those existing operations that can document 2006 annual revenues of less than the industry average of $250,000.

Under this alternative, the purchase and installation of new Perc based equipment would be prohibited beginning on January 1, 2008 as it would be for all operations in the staff proposal. In addition, it would require that converted Perc machines be removed from service by July 1, 2010 as does the staff proposal. The primary differences between the proposed alternative and the staff proposal are: 1) the alternative would provide regulatory certainty that all non-Perc machines could be used to comply with the ATCM and 2) the alternative would increase the phase-out period for newer, lower-emitting Perc machines operated by low-revenue dry-cleaners.

The need for regulatory certainty stems from the fact that when making a decision to replace Perc equipment, all affected dry-cleaners need to be able to recover the cost associated with new non-Perc equipment. At present, the ISOR indicates that a ban on both hydrocarbon and GreenEarth solvent based systems is a regulatory alternative that if adopted now or in the future could strand investments made in equipment that uses those solvents. Therefore, any regulations requiring the phase-out of Perc must include in them explicit guarantees that purchasers of equipment using non-Perc alternatives be allowed to operate that equipment for its entire useful life regardless of whether or not CARB or a local air quality district later decides to adopt additional new restrictions on dry-cleaning operations.

As noted in the ISOR, an increase in the phase-out period will lessen the economic burden of compliance with the proposed regulation. This is particular true for low revenue dry-cleaners. In addition, while the 15 year lifetime may be a reasonable estimate of the average age at which Perc based equipment is retired, its use in establishing the actual lifetime of all Perc equipment is arbitrary as many pieces of Perc dry-cleaning continue to be used for longer periods. Given the need to lessen the economic impact of the ATCM on low revenue operations and the fact that the 15 year lifetime is arbitrary, the regulatory alternative would allow the continued use of Perc equipment by low revenue operations until January 1, 2020 or until the equipment reaches 15 years of age whichever occurs later.

James Lyons 07-1-5

Comments on Behalf of the Northern California Korean Dry-Cleaners Association On the Proposed Perc ATCM

January 25, 2007

Presentation By

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Facts from the ISOR

- Over half of dry cleaners in California employ two or less full time employees (ES-4).
- 40% have gross sales of less than $100,000 (VII-6)
- Average gross sales are about $250,000 (VII-6)
- Regulation may have significant adverse impact on average facilities (ES-10)
- Only Financial Incentives are $10K Grant for CO2 and Wet (ES-11)
- Increasing the Perc phase out period lessens economic burdens of compliance (II-9)

Proposed Regulatory Alternative

- Installation of new Perc machines prohibited as of 1/1/2008 as under the staff proposal.
- Remove converted Perc machines by July 1, 2010 as under the staff proposal.
- Provided regulatory certainty that non-Perc dry-cleaning equipment including VOC systems can be operated until the end of their useful lives.
- Allow use of other Perc machines operated by low-revenue dry-cleaners with 2006 annual revenues below the industry average of $250,000 until January 1, 2020 or until they reach 15 years of age, whichever occurs later. Revisit if financial incentives become available for all alternatives.