

Problems on the Staff Report (the Proposed Amendments) and Suggestions

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1. Preface

I have reviewed the Air Resources Board staff's Proposed Amendments to the Dry Cleaning ATCM. I have respect for the staff for their spending a lot of time and efforts to prepare the amendments.

However, I have found a few suggestions to make and would like to bring up some problems found in the report. Even though I am a layman who lacks expertise on chemistry, physics, statistics or environmental problems, I am going to present the following issues to you mostly from my 26 years of experience in the cleaning industry and as one of those individuals whose interests will be directly affected by the amendments. It would be appreciated if you would pay attention to and review these with much understanding and tolerance and reflect them into the current proposed amendments so that the final output could be perfect and complete amendments.

2. Problems

(A) Relation between the proposed amendments and Rule 1421

If the proposed amendments pass as they are, will Rule 1421, which was enacted in 2002 under the State law and is put in force, remain valid or be automatically repealed?

According to the upper paragraphs on ES-2 and ES-10 [ES-11 in English version] in the staff report, it is quite ambiguous whether or not the proposed amendments would impact the facilities (dry cleaners) in the South Coast Air Quality Management District (South Coast AQMD). The report says, "The proposed amendments, unless modified by the Board, are not expected to impact the dry cleaners..." and also says, "...if the board adopts alternatives to the proposed amendments, those amendments could impact dry cleaners..." What do you mean by "if the board adopts alternatives"?

(B) The necessity for applying (quoting) accurate statistics

- 1) The initial statement of reasons for the proposed amendments quotes various statistics to use them for legislation but most of them look like unconvincing data. The following is a typical example: "The amount of

Perc being emitted by a typical dry cleaning facility differs depending on machine type." In my facility, an average dry cleaner, a typical primary machine cleans about 50,000 pounds of material per year. 20,000 pounds (40 percent) of the material are dry-cleaned and 30,000 pounds (60 percent) are processed by wet cleaning. I used 50 gallons of Perc in 2005. The report estimates that this type of machine (a typical primary machine) emits about 800 pounds of Perc in one year. I am afraid that this estimation is somewhat exaggerated. As one gallon of Perc is converted into 13.5 pounds and if I used 50 gallons of Perc, the converted amount of Perc will be 50 gallons x 13.5 pounds = 675 pounds. Then, it is estimated that the emission should be 59 percent (this figure is found in the report) of the amount used, which would be about 400 pounds. This is only half of the amount (800 pounds) estimated by the ARB staff. For your reference, I would like to estimate the amount of Perc used by a dry cleaner in one year and the gross sales. As pointed out on ES-7 in the report, let us say that a typical primary machine cleans about 47,000 pounds of material per year and emits about 800 pounds of Perc. The amount used can be calculated: 800 pounds x 159 percent = 1,272 pounds. Since one gallon equals 13.5 pounds, 1,272 pounds can be divided by 13.5 to become equivalent to approximately 94 gallons. If a cleaner uses 94 gallons per year, the gross sales of it could be estimated as \$450,000. The reason I show these figures is because I am a little doubtful about the criteria for an average dry cleaner presented in the report. It would be reasonable to regard a facility having annual sales of about \$300,000 as an average dry cleaner.

- 2) By what methods can the weight of the emitted Perc be measured and calculated in gallon or pound?

I came to think of this question as I was carefully reading the initial statement of reasons for the proposed amendments and reached page ES-7. According to the paragraph, statewide, the dry cleaning industry uses 378,000 gallons and emits 222,000 gallons or about 3 million pounds of Perc per year. (The amount emitted against the amount used accounts for 59 percent.) My question here is how an emission, which is apparently gas or vapor, can be calculated in gallon or pound, either of which is a unit for volume or weight. I could only guess that there must be some special ways to be applied by separate scientific technologies such as meteorology and air science. I would like to learn how to gather necessary data and calculate them in order to improve the understanding and intellectual aspects of dry cleaners directly facing emissions on site.

- 3) The main purpose of the proposed amendments is to reduce Perc emissions and lower the potential health impacts to individuals (cancer risk). Then, reliable statistics based on when the amount of Perc used

had been surveyed and assessed should have been presented.

- (a) The report says, "Statewide, the dry cleaning industry uses 378,000 gallons and emits 222,000 gallons or about 3 million pounds of Perc per year." In what year were these figures surveyed? The reason I would like to know this is that each dry cleaner has made an annual report to the local air district and county EMD at least since 1993 and that every Perc vendors have also reported their sales records to the authorities (I have no idea about when vendors began the reporting but believe that they have made a report since 2003 when they made a contribution to the funds at the same time.)
- (b) Therefore, ARB should disclose the data about whether there has been any increase or decrease in the amount of Perc used and emitted from 1993 to 2005, year by year, after they investigate (or total) the figures during the period. That is because the report says that in 2003, as a result of the Dry Cleaning ATCM, Perc emissions from dry cleaning operations have been reduced by about 70 percent (ES-1). However, that evaluation seems ambiguous and I doubt if they had done their best to gather data for legislation.
- (c) Most of the statistics presented by staff in the report are not up-to-date but were obtained in 2003. Here we found the dangerous thinking of staff using 3-year old data, not the current data, as important information for legislation. First, it is said that Perc emissions have been reduced by 70 percent until 2002 (or 2003) as a result of an evaluation performed ten years after the Dry Cleaning ATCM had been adopted in 1993. Second, dry cleaners have purchased Perc from 2004 through 2005 to 2006 by paying additional \$3, \$4 and \$5 (this year) per one gallon of Perc as fund contributions each year. We have to continue to contribute to the fund until the amount of contribution reaches \$10 per gallon. Currently, we are paying \$21 per gallon [of Perc]. If oil prices keep on soaring and we need to pay a contribution of an additional dollar to the price [of Perc] to the fund every year, we will see oil [Perc] prices at \$30 or over per gallon only within two to three years. Therefore, even now all dry cleaners refrain from using Perc as much as possible and do wet cleaning (60 percent) instead. I am wondering if the staff are aware of these actual circumstances. The reason I brought up the above two points representing our will to reduce the use of Perc is that I would like to explain the decreased use (purchase) of Perc and the subsequent reduction in Perc emissions from the perspective of a frontline dry cleaner, not a deskbound theorist. Thus, I would like to ask the staff to use the most recent statistics for legislation to evaluate how much Perc emissions have been reduced by this time since the 70 percent

reduction in 2003. (Considering the Perc prices have risen from about \$8 per gallon in 2003 to \$21 in 2006, they could easily figure out the numbers.)

- (d) The factors that have caused the reduction in Perc use and emissions could also be felt in the change of consumers' lifestyles as well as in the economic recessions all dry cleaners have felt from about five years ago (when the war against terrorism started). As factors triggering more spending, including worries about inflation and interest rate hikes, have increased, everybody is now cutting on spending and especially, apparel manufacturers are primarily producing washable products. Most of the products imported from smaller countries are sold under \$10. As people do the laundry at home or the trend to use coin laundries is on the rise, who will take a 5-dollar garment to a cleaner's for a 6-dollar cleaning? If the proposed amendments are to be passed and implemented as they are, dry cleaners facing a serious recession and trying to get over the current crisis with a spirit of saving by cutting down on labor, utilities and Perc costs will be driven into even more difficult circumstances.

3. Suggestions

- (A) My understanding about the main purpose of ARB to proceed with these proposed amendments is that ARB intends to reduce Perc emissions and remove potential cancer risks. What is more important is that impacts are different depending on distances between facilities (dry cleaning machines) and a living space (dwelling or a sensitive receptor). The potential cancer risk at 20 meters from a facility is 67.5 people per million (the average value of converted and primary machines). At 100 meters, only 7 people fall in the range of the potential cancer risk level, which is only one tenth [of the level at the 20-meter distance]. Then, at about 110 meters, the level would be near "0." So, even being judged by the principles of law such as equity, validity and rationality, it would not be appropriate to regulate facilities using Perc out of the range of the potential cancer risks. Using a secondary control machine with enhanced ventilation at 100 meters makes little difference from using an old machine in that the secondary machine causes three people [on average] to face a potential cancer risk, while the old machine makes seven at risk. Then, both of the machines at 120 or 150 meters would make no difference in terms of risk levels. This issue boils down to distances between facilities and a living space.
- (B) The more administrative controls (regulations) are enhanced, the more ways to seek relief from them should be worked out. If staff think that Perc should unconditionally be removed and plan to go ahead with the legislation of the proposed amendments, I would like to ask them to divert their ideas and

understanding to the following and to conduct more thorough researches and reviews.

- (C) The Table ES-5 "Potential Cancer Risk for High Perc Use Dry Cleaning Facilities" uses sample facilities, as a basic data, with about 100 gallons of Perc emissions per year, which can be interpreted as facilities using a large quantity of Perc, 159 gallons (estimated figure: 100 gallons x 1.59 emission rate (59%)). (A facility using 159 gallons: annual gross sales \$700,000 + wet cleaning = \$1 million estimated) How many facilities [of this type] are there throughout the State? (Wholesale facilities excluded.) Therefore, I request for a resurvey in order to draft complete, fair and reasonable amendments. Also, to secure public confidence and fairness, average dry cleaners should be chosen for sample surveys using yard and feet for easier understanding and breaking down distance into seven categories such as 60 ft., 100 ft., 150 ft., 200 ft., 250 ft., 300 ft. and 300 ft. or over. That would also be a way to gather information for good legislation. A law enacted or amended in haste and with incomplete data will produce innocent victims, which will lead to legal disputes. We have to predict those probable cases of legal disputes. We have seen a lot of dispute cases, including suspension of execution or provisional disposition cases, arising from deficient materials for legislation. Let me give an example. A dry cleaner called "A" uses a converted machine but is 400 ft. off from a living space (dwelling or a sensitive receptor). Thus, it is out of the range of potential cancer risks (0 or less than 5 per million) and its Perc emissions are 50 gallons or less. If, however, the proposed amendments pass, without alternatives, as they are and become effective July 2007, the dry cleaner will have to make an enormous investment in the facility such as expenses for the installation of enhanced ventilation and devices to reduce the density of Perc in the drum. If it still be required to phase out the machine by July 2010 (no permission granted or a fine imposed), then the facility will certainly enter legal battle. 89 percent or more of the victims in the same situation as "A" will fall into line with "A." (It is likely that all facilities in the State will join in the legal battle.) Such a serious issue has to be addressed beforehand. The Perc case that has begun in South Coast AQMD will grow throughout California, sweep through the United States and eventually affect the whole world.

4. Conclusions

- (A) It is said that law should be enacted (and/or amended) literally as flexible as water flow as implied in the Chinese character (法) for "law." [The semantic element 氵 in the left side of the Chinese character 法 refers to "water" and the phonetic element 去 in the right side means "to go", which implies "to flow smoothly."] If administrative authorities legislate in raw haste to support certain

policies in order to establish and implement those policies, such hastiness will cause trial and error or conflict with higher law (the constitution, federal or state law) in the process of their enforcement. If a lower government agency legislates of its own accord beyond the authorized limit of its powers specifically allowed by higher law, it will suffer severe aftereffects. For example, Rule 1471 and section 93109 of title 17 of the California Code of Regulations are in accord with the spirit and purpose of law, but since they differ in details, it is likely that there will be conflict in jurisdiction, regulatory methods and time limits between higher and lower law or between preexisting and subsequent law. Only when the facilities in South Coast AQMD are to be regulated by this legislation, then the amendments proposed by ARB, the highest agency in this matter in the State will be able to have legitimacy according to the principle of a higher law. An alternative could be sought with the proviso that Rule 1471 is not subject to the proposed amendments, but that would also be controversial enough to cause disputes.

(B) Request for equipping with accurate data for legislation through a thorough survey

I suggest that a complete enumeration, a comprehensive survey research, be made on the entire dry cleaners in the State regarding the types of solvents (alternatives or Perc), distances from a living space and the amount of Perc purchased by year in order to obtain accurate statistical data, and that different ways to apply regulations be sought by breaking down distances into more categories such as A, B, C and D as potential cancer risks differ depending on distances. For example, it is suggested that any facility within 20 meters of a co-residential facility shall only use alternative solvents that have been completely verified or may use non-toxic and non-smog forming technologies (class A). Any facility between 20 meters and 50 meters of a co-residential facility shall mandatorily install an enhanced ventilation system. For the facility 100 meters or over [off from a co-residential facility], options could be provided to allow to apply the local ventilation system only out of the enhanced ventilation systems.

(C) I suggest that [ARB] evaluate alternative solvents that have not been completely verified in terms of safety in close cooperation with relevant authorities such as EPA and OEHHA and make public if they contain a TAC. I also suggest that [ARB] pay attention to machines that are now being researched, developed and sold by machinery companies as well and analyze and evaluate them before proceeding with this legislation.

(D) Finally, I have respect for the staff for their many efforts to prepare these proposed amendments. I firmly believe that since these amendments are not a matter to be processed in a hurry, it would be no problem if they would be supplemented for a new go-ahead after [the staff] should secure sufficient

materials by completing a comprehensive survey research on the entire dry cleaning facilities [in California] as of end of 2006.

May 25, 2006

Taekook Kwon [Signature]