

- d) Change in the quantity of ground waters, either through direction additions or withdrawals, or through interception of an aquifer by cuts or excavations? ☐ ☒
- e) Altered direction or rate of flow of groundwater ☐ ☒
- f) Impacts to groundwater quality? ☐ ☒
- g) A need for new water treatment, distribution, sewer or storm water drainage systems? ☒ ☐

The de-listing of perchloroethylene, some HCFCs and HFC from the definition of VOC may result in the increased usage of these chemicals. Owners and operators may alter their processes in the areas of solvent degreasers, paints and architectural coatings, adhesives, textiles, pharmaceuticals, etc., in order to use perchloroethylene. Due to the volatility and end-use pattern of perchloroethylene, 80 percent to 85 percent of the chemical used annually is released into the atmosphere with only one percent released to the water. Data regarding perchloroethylene usage in 1992 shows that more than 12.3 million pounds of perchloroethylene were released to the atmosphere, 10,000 pounds were released to surface water, 13,000 pounds to underground injection sites and 9,000 pounds to land from U.S. facilities.⁹ Therefore, there is the potential for perchloroethylene being transferred to the water stream which may require treatment at a publicly owned treatment works to increase as a result of the proposed amendments.

Potential water quality impacts as a result of the proposed amendments will be evaluated in the Draft EA.

V. AIR QUALITY. Would the proposal:

- | | Potentially Significant Impact | No Impact |
|--|-------------------------------------|-------------------------------------|
| a) Violate any air quality standard or contribute to an existing or projected air quality violation? | ☐ | ☒ |
| b) Expose sensitive receptors to pollutants? | ☒ | ☐ |
| c) Alter air movement, moisture, or temperature, or cause any change in climate? | ☐ | ☒ |
| d) Create objectionable odors? | ☒ | ☐ |
| e) Diminish an existing air quality rule or future compliance requirement resulting in a significant increase in air | ☐ | ☐ |

⁹ 1992 Toxics Release Inventory (TRI). Office of Pollution Prevention and Toxics, U.S. Environmental Protection Agency, pg. 94.

The proposed amendments may promote the increased usage of perchloroethylene, HFC and HCFCs in amounts greater than those currently used. If these compounds are no longer subject to AQMD rules regulating volatile organic compounds (VOCs), facility owners or operators may shift operations to utilize more of them. Areas where increased usage may occur include solvent degreasing, coating formulations, textiles, printing inks, and dielectric fluids for power transformers. Perchloroethylene used in significant quantities may create an objectionable odor nuisance to facility workers and nearby residents. This potential adverse impact resulting from the incremental increased usage of perchloroethylene will be evaluated in the Draft EA.

In addition, HCFCs are considered Ozone Depleting Compounds (ODCs) and are scheduled for an eventual phase out under the Montreal Protocol. An increase of usage of these products may adversely affect the environment by destroying ozone in the upper atmosphere. This potential adverse air quality impact will also be evaluated in the Draft EA.

VI. TRANSPORTATION/CIRCULATION. Would the proposal result in:

- | | Potentially Significant Impact | No Impact |
|--|--------------------------------|-------------------------------------|
| a) Increased vehicle trips or traffic congestion? | ☐ | ☒ |
| b) Hazards to safety from design features (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)? | ☐ | ☒ |
| c) Inadequate emergency access or access to nearby uses? | ☐ | ☒ |
| d) Insufficient parking capacity on-site or off-site? | ☐ | ☒ |
| e) Hazards or barriers for pedestrians or bicyclists? | ☐ | ☒ |
| f) Conflicts with adopted policies supporting alternative transportation (e.g. bus turnouts, bicycle racks)? | ☐ | ☒ |
| g) Rail, waterborne or air traffic impacts? | ☐ | ☒ |

There are no potential adverse transportation impacts associated with the proposed amendments. The amendments re-define volatile organic compound for the purposes of AQMD rules and regulations. This definition revision will not result in conflicts with any adopted policies supporting alternative transportation, create hazards or barriers for pedestrians or bicyclists, or increased vehicle trips or congestion.

VII. BIOLOGICAL RESOURCES. *Would the proposal result in impacts to:*

	Potentially Significant Impact	No Impact
a) Locally designated natural communities (e.g. oak forest, coastal habitat, etc.)?	☐	☒
b) Wildlife dispersal or migration corridors?	☐	☒

No direct or indirect impacts from the proposed amended rule were identified that could adversely affect plant or animal species or the habitat upon which they depend in the jurisdiction of the AQMD. A conclusion of the 1997 AQMP EIR was that population growth in the region would have greater effects on plant species and wildlife dispersal or migration corridors than any air quality control measures. The current and expected future land development to accommodate population growth is primarily due to economic considerations or local government planning decisions. The proposed amended rule will not affect population growth or land use development. Therefore, the proposed amended rule would not create significant adverse direct or indirect impacts on biological resources.

VIII. ENERGY AND MINERAL RESOURCES. *Would the proposal:*

	Potentially Significant Impact	No Impact
a) Conflict with adopted energy conservation plans?	☐	☒
b) Use non-renewable resources in a wasteful and inefficient manner?	☐	☒
c) Result in the need for new or altered energy utilities (e.g., power or natural gas)?	☐	☒

The proposed amended rule may indirectly increase the amount of perchloroethylene or HFC and HCFC used in the Basin. It will not, however, encourage or require additional energy. The amendments have no potential to deplete non-renewable resources at an accelerated rate or in a wasteful manner, or result in the need for new or altered energy utilities.

IX. HUMAN HEALTH/HAZARDS. *Would the proposal involve:*

	Potentially Significant Impact	No Impact
a) A risk of accidental explosion or release of hazardous substances (including, but not limited to: oil, pesticides, chemicals or radiation)?	☒	☐
b) Possible interference with an emergency response plan or emergency evacuation plan	☐	☒
c) The creation of any health hazards or potential health hazard?	☒	☐
d) Exposure of people to existing sources of potential health hazards?	☒	☐
e) Increased fire hazard in areas with flammable brush, grass, or trees?	☐	☒

An indirect result of the proposed amendments may be the increased use of perchloroethylene, HFC and HCFCs. Perchloroethylene is currently listed in both Table I and II of SCAQMD's Rule 1402 - Control of Toxic Air Contaminants from Existing Sources. These tables include all compounds that must be evaluated for cancer risk, and for acute chronic hazard effects. The increase usage of perchloroethylene may result in adverse health effects such as potentially increased cancer incidents in the district.

The main route of human exposure to perchloroethylene is through the respiratory tract, with intake via the gastrointestinal tract being less common. Perchloroethylene is rapidly absorbed into the blood from inspired air. The amount absorbed is dependent upon chemical concentration, lean body mass, level of activity during exposure, respiratory minute volume, and duration of exposure.¹⁰ Exposure to high levels of perchloroethylene can cause eye and respiratory irritation, dizziness, incoordination, and unconsciousness. Animal studies indicate that perchloroethylene can adversely affect the central nervous system and liver. Adverse liver and kidney effects have also been observed in workers exposed to perchloroethylene. Prolonged exposure can cause irritation, dryness, and dermatitis to the skin.¹¹

¹⁰ Toxicological Profiles, Agency for Toxic Substances and Disease Registry, 1989 - 1994, Chambliss, GA, found in Perchloroethylene Chemical Summary, Office of Pollution Prevention and Toxics, U.S. Environmental Protection Agency, August 1994.

¹¹ Tortolero TR, and Rowe, VK. 1981. Halogenated aliphatics. In: Patty's Industrial Hygiene and Toxicology, 3rd Edition, Volume 2B, pages 3560 - 3568 found in Perchloroethylene Chemical Summary, Office of Pollution Prevention and Toxics, U.S. Environmental Protection Agency, August 1994.

Chapter 2 - Environmental Checklist

EPA is currently assessing the carcinogenicity of perchloroethylene. Perchloroethylene has been shown to cause cancer in laboratory animals by both inhalation and oral exposure. In addition, both human and animal studies indicate that perchloroethylene adversely affects that central nervous system. The threshold for acute inhalation effects, including headaches, dizziness, and incoordination, in humans is 100 parts per million (ppm). The toxic and carcinogenic effects of the increased usage of perchloroethylene will be evaluated in the Draft EA.

Perchloroethylene is non-flammable so there is no risk of a potential explosion associated with this compound. Drums of HFCs, however, have been found to rupture under fire conditions or high temperatures. In addition, high temperatures create hazardous by-products such as hydrofluoric acids and possibly carbonyl halides. The potential hazards associated with these compounds will be evaluated in the Draft EA for Proposed Amended Rules 102 and 1302.

X. NOISE. Would the proposal result in:

- a) Increases in existing noise levels? ☐ Potentially Significant Impact ☒ No Impact
- b) Exposure of people to severe noise levels? ☐ Potentially Significant Impact ☒ No Impact
- The proposed amendments to Rule 1421 are not expected to significantly increase the level of noise at dry cleaning facilities because both existing and proposed amended Rule 1421 require the owner/operator of an affected facility to install comparable noise producing compliant equipment when replacing old, or installing new equipment. There is no additional equipment required or any other mandates that would create noise. As a result, there are no adverse noise impacts associated with the proposed amendments to Rule 1421.

XI. PUBLIC SERVICES. Would the proposal have an effect upon, or result in a need for new or altered government services in any of the following areas?

- a) Fire protection? ☒ Potentially Significant Impact ☐ No Impact
- b) Police protection? ☐ Potentially Significant Impact ☒ No Impact
- c) Schools? ☐ Potentially Significant Impact ☒ No Impact
- d) Maintenance of public facilities, including roads? ☐ Potentially Significant Impact ☒ No Impact
- e) Other governmental service? ☐ Potentially Significant Impact ☒ No Impact
- Any hazard impacts resulting from the proposed amendments would be addressed through local fire protection officials. Explosions or the release of unhealthful by-

Chapter 2 - Environmental Checklist

products may require assistance from fire protection personnel. The potential public service impacts as a result of the proposed project will be addressed in the Draft EA.

XII. SOLID/HAZARDOUS WASTE. Would the proposal:

- a) Result in the need for new or substantial alterations to solid or hazardous waste disposal utility systems? ☐ Potentially Significant Impact ☒ No Impact
- There are no waste impacts associated with the proposed amendments. The amendments would merely exempt additional compounds from the definition of VOC in Rules 102 and 1302. No change in the amount or character of solid waste is expected to occur.

XIII. AESTHETICS. Would the proposal:

- a) Affect a scenic vista or scenic highway? ☐ Potentially Significant Impact ☒ No Impact
- b) Have a demonstrable negative aesthetic effect? ☐ Potentially Significant Impact ☒ No Impact
- c) Create light or glare? ☐ Potentially Significant Impact ☒ No Impact
- The proposed amended rule has no potential to affect scenic vistas. Exempting additional compounds from the definition of VOC will not create light and glare impacts or obstruct a scenic vista. Any additional usage of these compounds would occur at existing commercial and industrial facilities, and not impair any of the district's aesthetic qualities.

XIV. CULTURAL RESOURCES. Would the proposal:

- a) Disturb paleontological resources? ☐ Potentially Significant Impact ☒ No Impact
- b) Disturb archaeological resources? ☐ Potentially Significant Impact ☒ No Impact
- c) Have the potential to cause a physical change which would affect unique ethnic cultural values? ☐ Potentially Significant Impact ☒ No Impact

The proposed amended rule has no potential to affect cultural resources because it exempts additional compounds from the definition of VOC. The amendments would not

Chapter 2 - Environmental Checklist

require the disruption of any ethnic cultural values, or disturb archaeological resources in any manner.

XV. RECREATION. Would the proposal:

- a) Increase the demand for neighborhood or regional parks or other recreational facilities? ☐ Potentially Significant Impact ☒ No Impact
- b) Affect existing recreational opportunities? ☐ Potentially Significant Impact ☒ No Impact

The proposed amendments do not have the potential to affect existing recreational opportunities as they pertain to exempting additional compounds from the definition of VOC. Recreational opportunities will not be adversely affected by the proposed amendments.

Due to the potential increased usage of these compounds and the health effects related to these compounds, the project has the potential to degrade the environment and cause adverse effects on human beings. These issues will be evaluated in detail in the Draft EA for the proposed project.

Chapter 2 - Environmental Checklist

XVI. MANDATORY FINDINGS OF SIGNIFICANCE.

- | | Potentially Significant Impact | No Impact |
|--|-------------------------------------|-------------------------------------|
| a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | ☒ | ☐ |
| b) Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? | ☐ | ☒ |
| c) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects) | ☐ | ☒ |
| d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | ☒ | ☐ |

APPENDIX B

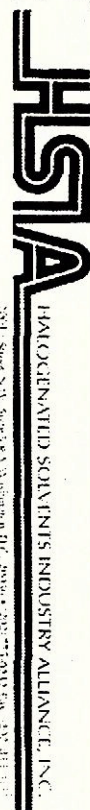
RESPONSES TO COMMENTS RECEIVED ON THE
NOTICE OF PREPARATION AND INITIAL STUDY

113

COMMENT LETTER #1

HALOGENATED SOLVENTS INDUSTRY ALLIANCE, INC.

114



January 10, 1997

Ms. Tara Tisopolos
Office of Planning and Policy
South Coast Air Quality Management District
21865 East Copley Drive
Diamond Bar, CA 91765-4182

Re: Notice of Preparation and Initial Study, Proposed Amended
Rule 102 (Definition of Terms) and Proposed Amended
Rule 1302 (Definition of Terms), December 1996

Dear Ms. Tisopolos:

The Halogenated Solvents Industry Alliance, Inc. (HSLA) appreciates the opportunity to comment on the initial findings relating to the District's proposal to exempt perchloroethylene ("perc") from the definition of volatile organic compound (VOC) under Rule 102. As noted in the November 26 draft staff report, the U.S. Environmental Protection Agency (EPA) exempted perc in February 1996.

EPA's decision to exempt perc was based on two important considerations: (1) existing stationary sources of perc are subject to control requirements under the Agency's maximum available control technology (MACT) standards under the Clean Air Act; and (2) potential growth of the solvent in consumer and commercial products is significantly limited by technical and other regulatory considerations. The California Air Resources Board (ARB) made a similar conclusion about the potential growth in perc use prior to exempting the solvent from its consumer product regulations in November of last year. HSLA believes that SCAQMD should draw on the analysis conducted by these two organizations in completing its own assessment of the potential impacts of an exemption.

1-1

115

Ms. Tara Tisopolos
January 10, 1997
Page 2

Potential Growth in Perc Use

An underlying assumption in the District's preliminary assessment is that the exemption will result in a significant increase in the use, and environmental release, of the solvent from stationary sources in the Los Angeles Basin. Based on the number of existing federal, state, and District controls on users and potential users of perc, we believe that assumption to be incorrect.

Solvent Cleaning/Degreasing

Much of the District's concern about the exemption appears to stem from the assumption of a resulting increase in use of perc as a cleaning replacement for methyl chloroform (1,1,1-trichloroethane, or MCF). This concern is tempered, however, by several important factors: (1) MCF production for non-feedstock applications ceased on January 1, 1996; (2) a number of solvent and aqueous alternatives to MCF are available to degreasing users; (3) a significant percentage of MCF was used in hand wipe and other cold cleaning applications where perc use is generally not recommended; and (4) EPA's national emission standards for halogenated solvent cleaning, including cleaning with perc, will become effective in December 1997.

While companies are not prohibited from using MCF after January 1996, its declining availability has created significant incentive to find substitutes. As a result, most companies already have chosen an alternative cleaning solvent or process. Those companies that have elected to switch to perc have done so prior to the District's exemption proposal. For a variety of reasons discussed elsewhere in this comment, companies electing to use alternatives other than perc will have little incentive to switch as a result of the exemption.

Historically, only a small percentage of perc has been used for degreasing because of its high boiling point and lower workplace exposure limit. Moreover, companies wishing to use perc in California are subject to the notification requirements of Proposition 65. While interest in perc as a degreasing solvent has increased in recent years, much of that interest has resulted from its use in new, low-emission equipment designed to address workplace and ambient concerns.

1-3

B-2

116

April 1997

Ms. Tara Tisopulos
January 10, 1997
Page 3

1-3
cont. Because of its nonflammability and relatively high workplace exposure limit, MCF was used historically in a wide variety of hand wipe and other cold cleaning applications. These processes are common to the aerospace and other precision cleaning operations that tend to be concentrated in southern California. MCF replacement in these applications has been a nagging problem, because of the need to satisfy concerns about flammability, worker exposure, solvent power, and drying rate. Perc is not a particularly viable alternative because of its lower exposure limit and its (relatively) slower evaporation rate. The manufacturers of perc do not recommend its use in cold cleaning applications where compliance with workplace limits can not be assured.

1-4 EPA's national emissions standards for hazardous air pollutants (NESHAPs) for halogenated solvent cleaning, which become fully effective in December of this year, require 50 to 70 percent control on open-top (batch) and in-line (conveyorized) vapor degreasers and cold cleaning tanks. It accomplishes this goal by allowing companies to choose from 3 basic compliance alternatives: one of several control equipment combinations, an idling emissions limit, or a total emissions limit.

Of these three options, the total emissions limit is designed to minimize reporting and recordkeeping requirements in exchange for a higher level of control. The total emissions limits (monthly rolling average) are as follows: 30.7 lbs/ft² (psf) for batch vapor degreasers, 31.4 psf for existing in-line degreasers, and 20 psf for new in-line degreasers. These emission limits can serve as an excellent basis for controlling any potential increase in perc emissions from degreasers in the District.

Drycleaning

1-5 As noted in the draft staff report, almost all drycleaners in the District currently use perc. These facilities are subject to control under the District's Rule 1421 adopted in December 1994. As a result, exemption of perc will have no impact on drycleaning operations.

Chemical Milling Maskants

1-6 Chemical milling operations are subject to control under District Rule 1124 (Aerospace Assembly and Component Manufacturing Operations) and the federal NESHAPs for aerospace manufacturing and rework. In October 1996, EPA

B-3

117

April 1997

Ms. Tara Tisopulos
January 10, 1997
Page 4

1-6
cont. proposed to add a VOC and hazardous air pollutant (HAP) limit of 622 grams per liter (5.2 pounds per gallon) for uncontrolled use of Type I (i.e., solvent-based) maskants to the aerospace standard. This limit is significantly lower than the VOC/HAP levels in current Type I maskants.

Under the proposed revision to the NESHAPs, use of maskants with greater VOC/HAP levels would require the installation of control equipment achieving 81 percent emission control or higher. According to the draft staff report, all four of the maskant operations in the District already have installed carbon adsorption equipment to control emissions. Data available from EPA's 1994 Toxic Release Inventory (TRI) data base indicate that perc emissions from these facilities are less than the 0.5 to 1.0 tons per day suggested in the draft staff report.

Based on the above information, HSEA believes it is very unlikely that perc emissions from maskant operations will increase as a result of an exemption, even in the short term. Existing facilities already are controlling their emissions to satisfy the requirements of Rule 1124 and will be subject to similar requirements under the aerospace NESHAP. Any new maskant facilities would be subject to the NESHAP requirements upon start-up.

Film Cleaning and Wet Printing

1-7 HSEA is not aware of significant interest in perc use for motion picture film cleaning or wet printing. Because of the nature of the application, efforts to replace MCF in these applications has been focused on solvents like HFC-43-10 with high worker exposure limits. Low-exposure solvents like perc are unlikely to be viable with current film cleaning technology. If, however, equipment becomes available that controls exposures by reducing emissions, there would be no reason to expect a significant increase in emissions from the use of perc for film cleaning.

Consumer Product Manufacture

1-8 As part of their respective decisions to grant the exemption for perchloroethylene, EPA and ARB collected a considerable amount of information on the potential use of the solvent in consumer products. Based on surveys of the consumer product industry, they found little or no interest in reformulation with perc. Among the factors influencing this decision was the requirement

B-4

118

April 1997

Ms. Tara Tsipulos
January 10, 1997
Page 5

for labeling of products containing perc under California's Proposition 65. The requirement for such labeling is viewed as a significant disincentive to formulation with the solvent.

1-8
cont. Although they do not expect an increase in perc use, the national trade associations representing adhesives, paints and coatings, and consumer product manufacturers have agreed to track the solvent's use as part of their annual data collection surveys.

Paints, Coatings, and Adhesives

As noted above, the paint and coating and adhesive industries have indicated to EPA that perc use will not increase in their products and have agreed to track the use of the solvent for the Agency. Aside from the labeling considerations, ARB's aerosol coating rule requires that perc be included in the calculation of VOC content in products sold in California.

Aerosol Brake Cleaners

1-9 A large number of auto repair facilities in the District currently use aerosol brake cleaners containing perc. These facilities are expected to continue to use these products, as a result of the ARB decision to exempt the solvent from its consumer product regulations. As part of its review, ARB evaluated the potential health effects to workers and the surrounding communities resulting from the use of these aerosol products. It concluded that worker exposures are below the applicable federal and state limits, and that potential risks to the community are likely to be less than that presented by controlled drycleaning facilities.

Since regulation of aerosol brake cleaners is outside the District's jurisdiction, and since these products already contain perc, the proposal to exempt the solvent from District regulation will have no impact on this application.

Potential for Adverse Health and Environmental Impacts

1-10 In two or three instances in the draft materials, District staff have incorrectly characterized the carcinogenic evidence for perc. In developing its environmental

B-5

119

April 1997

Ms. Tara Tsipulos
January 10, 1997
Page 6

assessment, HSI/A urges the District to present a consistent and objective description of the available evidence.

1-10
cont. Health Hazard to the Surrounding Community
Data from a 1987 SCAQMD study of toxic air contaminant emissions indicate that ambient exposure to perc contributed less than 1 percent to the total estimated potential (upper-bound) risk to District residents. Since that time, emissions from the largest source of perc, drycleaning, have been reduced significantly by the implementation of Rule 1421. Based on this earlier analysis, and the likelihood that perc emissions will not increase after the exemption is granted, HSI/A believes that the draft staff report overstates the potential health impacts of the exemption.

Discharge to the Water Stream

1-11 In its assessment of the potential for water quality impacts, the draft staff report extrapolates from national data included in the 1992 TRI data base. HSI/A does not believe that such extrapolation is valid for two reasons. The TRI data includes releases from all manufacturing sectors, some of which (e.g., perc manufacturing operations) are not represented in the District. The draft staff report makes no attempt to quantify TRI data from the particular applications of concern. In addition, the simplistic analysis contained in the draft staff report does not address the potential for a significant increase in water discharges from the exemption. As noted earlier, such an increase is unlikely.

In conclusion, HSI/A believes that the proposal to exempt perc will not result in significant adverse health and environmental impacts. Existing applications of the solvent are subject to District and/or federal controls, and labeling and worker exposure requirements present substantial disincentives to new applications.

Sincerely,

Peter E. Voytek, Ph.D.
Executive Director

B-6

120

April 1997



January 7, 1997

Dr. Aruporn Tangul
South Coast Air Quality
Management District
21843 East Copley Drive
Diamond Bar, CA 91765-4182

Dear Dr. Tangul:

I am writing with comments on the proposed amendments to SCAQMD Rule 102, "Definition of Terms," and Rule 1302, "Definitions." My comments focus on two issues, the exemption of perchloroethylene (PERC) from VOC regulations and the consolidation of Group I and Group II Exempt Compounds. Each of these issues is discussed below.

PERC Exemption

2-1 IRTA is requesting that the District delay the exemption of PERC from VOC regulations until the Halogenated Solvents Degreasing National Emission Standards for Hazardous Air Pollutants (NESHAP) regulation is effective for existing facilities in December, 1997. Dry cleaning is the major use of PERC and the California Air Resources Board (CARB) Airborne Toxics Control Measure (ATCM) appropriately regulates PERC dry cleaning. Degreasing is the second largest use of PERC and lying the effective date of the exemption in the effective date of the NESHAP is a reasonable approach. Many of the firms using PERC for degreasing are small and they are not aware that the NESHAP requirements are pending. Delaying the exemption will give the District time to develop and implement a comprehensive outreach program to make these firms aware of the NESHAP. There are several other uses of PERC and, with the VOC exemption, they may be largely uncontrolled. In deciding on the timing of the exemption, the District must weigh the fairness issue, where a non-VOC should be exempted, against the issue of leaving PERC uncontrolled in several applications as a toxic. IRTA is convinced that linking the VOC exemption to the Degreasing NESHAP effective date is the optimal approach that best balances the needs of industry and the exposed workers and community.

2-2 With the exemption of PERC from VOC regulations, the District will have to rely on existing toxics regulations to adequately control use of the chemical. PERC is a suspect carcinogen with a unit risk factor of 5.9×10^{-6} . This indicates a very high cancer potency and facilities using the chemical generally pose a high risk to the surrounding community. District Rule 1401, the regulation that controls new and modified uses of toxics, does not list PERC. It is important to ensure that existing federal, state or local toxics regulations will control the emissions and risk once the chemical is exempted.

2-3 PERC is used widely in a variety of applications. CARB has developed an ATCM for PERC use in dry cleaning, which is the largest use of PERC. CARB has obtained equivalency for the ATCM from EPA. Thus instead of implementing the EPA NESHAP regulation developed at the federal level for PERC dry cleaners, the CARB ATCM applies in this state. The District developed Rule 1421, a toxics rule for dry cleaning, but has plans to revoke the rule and replace it with the ATCM. The exemption of PERC will not affect the dry cleaning since there is a very comprehensive toxics regulation-the ATCM-in place for that industry.

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INSTITUTE FOR RESEARCH AND TECHNICAL ASSISTANCE

COMMENT LETTER #2

The next largest use of PERC is in degreasing where the chemical is used in cold cleaning or vapor degreasing units to remove various contaminants from different types of metal and plastic substrates. District Rule 1122 has controlled PERC use in this application in the past. Because the chemical was classified as a VOC, BACT was required for new and modified sources. When PERC is exempted from VOC regulations, there will be no controls on the chemical in this application at the local level.

As you know, the production of 1,1,1-trichloroethane (TCA) and CFC-113 was banned on January 1, 1996. The two chemicals, especially TCA, are still used fairly widely in degreasing applications and the supply is likely to last at least through 1997; several firms may continue using TCA well into 1998. Over the last few years, as the federal tax on TCA has increased, numerous firms have converted to PERC in degreasing. In many cases, where the permit states that the degreaser will use a non-phosphorically reactive solvent, the conversion can be done by the plant without notifying the District. In cases where permits do not allow the use of solvents other than TCA or CFC-113, and in cases where a degreaser is upgraded, firms will seek a permit modification. In still other cases where firms have started up a degreasing operation using PERC, they will seek a new permit to use the chemical. Again, since PERC is not listed on District Rule 1401, the only District regulations governing its use in degreasing are VOC regulations.

2-3
cont.

There are hundreds of firms using PERC for degreasing in the Basin; there may eventually be more than one thousand. Many of them have very old and ineffective degreasers that will not protect workers or the surrounding community from the toxic effects of the chemical. Most of the companies that have begun new operations or converted existing operations are not aware that there is an EPA NESHAP regulation that affects their activities.

The California Health and Safety Code requires CARB to adopt, implement and enforce every NESHAP that is promulgated by EPA. The local air districts are required, in turn, to implement and enforce the NESHAP. There is provision for the state and local air districts to develop their own regulations within a certain timeframe but CARB and the District have failed to do so for the degreasing category. As a consequence, the District is required by law to adopt the Degreasing NESHAP by reference. The legal requirement means that the District has adopted the NESHAP by reference but the District has certainly not done so explicitly. In fact, regulations at the District are not implemented or enforced unless they appear in the rule book. In order to ensure that the Degreasing NESHAP is implemented and enforced, the District will have to put it as it is or rewrite it into the rule book. Under the law, in effect, there is no way for the District to avoid adopting and implementing the NESHAP.

The degreasing NESHAP affected new facilities beginning in 1991. It has not been implemented or enforced for new facilities in the District to date. The NESHAP will become effective in December, 1997 for existing facilities. The District must be prepared at that time to begin implementation and enforcement. Since the Degreasing NESHAP is an area source NESHAP, it affects all sources, no matter how small, that meet the applicability requirements.

Other applications of PERC include film cleaning, chemical milling and chemical processing maskants and consumer products, notably brake cleaner. The film cleaning use will be covered by the Degreasing NESHAP. Again, because the Degreasing NESHAP is an area source NESHAP, it will cover virtually all sources using the chemical for degreasing.

B-2

123

April 1997

2

The District staff report indicates that there are four major chemical milling maskant applications in the Basin and that all have installed carbon adsorption control systems. They have installed these systems because they were required to do so by VOC regulations that covered PERC. When PERC is exempted from VOC regulations, the control systems could be removed unless another toxic regulation affects these facilities. The four large facilities are likely to be subject to the Aerospace NESHAP which will affect existing facilities beginning in 1998.

The Aerospace NESHAP affects only one type of chemical milling operation and it is not clear whether the four facilities cited in the staff report all have this type of operation. It may be that there will be no regulations that affect one or more of the four facilities once PERC is exempted from VOC regulations. Moreover, the Aerospace NESHAP is a major source NESHAP. The facilities subject to the Aerospace NESHAP have potential emissions greater than 10 tons per year (tpy) of any individual HAP and 25 tpy of combined HAPs are covered by the regulation. The four sources cited in the staff report might not all be major sources if they removed their control equipment.

Because the Aerospace NESHAP covers only one type of chemical milling maskant operation, it leaves unregulated all chemical processing maskant operations. These operations are like handwipe cleaning; they are performed by perhaps hundreds of firms in the Basin. In such operations, a PERC-based maskant is applied to parts in screen certain sections from subsequent operations, like coating or plating. These operations are not regulated by the District and they are not regulated by the Aerospace NESHAP.

CARB recently exempted PERC from VOC regulations in consumer products. The major use of PERC in such products is in brake cleaner formulations. 1 ton enclosing HRTA's letters to CARB during the rulemaking and they explain the use and the consequences of this application in detail. With the adoption of the Rule 1171 limit of 50 grams per liter VOC, the use of PERC in brake cleaners will have a pathway to the atmosphere. Any use of PERC at all in brake cleaner will cause a problem; an increased use because of the exemption could be a serious issue for the POTWs in California.

During the CARB rulemaking, RITA estimated the risk to surrounding communities of PERC brake cleaner use in auto repair facilities. CARB subsequently performed risk calculations and found the results to be of concern. As a consequence, CARB agreed as part of the exemption, to perform a needs assessment for an ATCM in PERC brake cleaning. CARB also agreed to collect use data from the aerosol packers and distributors to determine whether the exemption will lead to an increased use of PERC in consumer products. CARB plans to initiate the needs assessment shortly and, if an ATCM is found to be necessary, the District would be required to implement and enforce it in the Basin.

The issues discussed here demonstrate that the only end use of PERC that is now properly controlled with a toxics regulation is dry cleaning. With the exemption of PERC from VOC regulations, there will be no regulations on its use in degreasing, chemical milling and chemical processing maskants and this will mean that the Degreasing NESHAP will become effective for existing operations in December, 1997. The Aerospace NESHAP, which affects only major sources and which applies only to one type of chemical milling, will become effective on existing facilities in 1998. There are currently no proposed regulations on chemical processing maskants or on PERC brake cleaning.

PERC is not listed on District Rule 1401 in spite of the fact that its potency is much higher than several of the chemicals on that list. The chemical is listed on District Rule 1402 but that rule is implemented through AH 2588. AH 2588 has recently been loosened and the

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124

April 1997

District has still not finished requiring firms with 1989 reported emissions that exceed the significance level to provide notification. It is not likely that firms that converted to the chemical since 1989 will ever have to provide notification even if they greatly exceed the significance threshold.

RTA is requesting that the District file the exemption of PERC from VOC regulations to the Degrassing NESHAP effective date of December, 1997. At that stage, two of the major users of PERC, dry cleaning and degreasing, will be covered by federal and state toxics regulations.

Tying the PERC exemption to the Degrassing NESHAP has another purpose that could prove to be an advantage to the District. Many of the hundreds of firms that have converted from TCA to PERC over the last few years and many of those planning to do so over the next few years are not aware of the Degrassing NESHAP. If the District exempts PERC from VOC regulations, the message to firms is that it is not dangerous to emit PERC in high quantities. Most of the degreasers used by firms in the Basin do not meet the requirements of the Degrassing NESHAP. Firms have made the decision to convert to PERC from TCA based on the belief that they will not have to upgrade their degreasers. Indeed this would be confirmed by a District action to exempt PERC from VOC regulations, unless the District makes a concerted effort to explicitly point out the requirements of the Degrassing NESHAP. Firms will believe the District has misled them and will resent the need to put substantial funds into upgrading existing degreasers or purchasing new ones. In fact, if some of them had known about the NESHAP, they might have made a decision to purchase aqueous cleaning equipment or convert their degreasing to water-based cleaners earlier.

A decision to delay the PERC exemption until the Degrassing NESHAP affects existing facilities would be good District policy. It will allow the District time, during the Rule 1122 amendments over the next year, to decide how to best implement and enforce the Degrassing NESHAP. It will also allow the District time to make the industrial community, which is composed of many small businesses, aware of the requirements of the NESHAP. The firms affected by the NESHAP will understand that the exemption does not mean PERC is less dangerous and unregulated. They will appreciate the District efforts in making them aware of the NESHAP and their options for complying with it. A delayed exemption is a win-win for the District and industry.

Group I and Group II Exempt Compounds

The District is also proposing to eliminate the distinction between Group I and Group II Exempt Compounds in Rule 102. RTA is requesting that this classification be kept but that it be changed to exclude ozone depleting compounds (ODCs).

Chemicals like methylene chloride are exempt from VOC regulations but are heavily regulated in other District rules. Methylene chloride is listed on Rule 1401 so firms that wish to set up new operations or convert to it from other chemicals must perform a risk assessment. Often the risk assessment demonstrates that the chemical cannot be used in most operations. This listing of methylene chloride has been effective in virtually eliminating its use in the Basin in degreasing and other applications where there are alternatives.

With the exemption of PERC from VOC regulations, the chemical will be regulated in dry cleaning and degreasing but generally not in the other applications where it is used. PERC is not listed on Rule 1401 so firms can set up new operations and convert to it without the need for a risk assessment. In effect, all uses not covered by an ATCM or NESHAP

would be allowed without any controls. Keeping the category of Group II Exempt Compounds would allow the addition to the category of toxic chemicals like PERC that have many uses that are unregulated.

When perchloroethylene (PCE) and the volatile methyl siloxanes (VMSs) were exempted from VOC regulations, the District staff argued that while they were not ozone precursors, they were toxic and the District asked ODEHA to evaluate the chemicals' toxicity. The District proposed and the Governing Board approved their inclusion in the Group II exempt compound category unless and until the producers of the chemicals provided data that indicated the chemicals were not toxic. RTA believes it would be undermining the Governing Board's intent to decide the category. The Board clearly indicated at the PCOTI and VMS hearings that the producers must submit toxicity data to get their chemicals excluded from the Group II category. The District staff is now arbitrarily changing that intent and rewarding the producers for not conducting further toxicity testing.

The producers of PCBTF have indicated that they have no intention of ever conducting either 90 day subchronic or chronic toxicity testing of their chemical. Thus no data indicating the chemical is not toxic will ever be developed. On the other hand, the producers of VMSs have 90 day subchronic tests underway and do have plans to conduct chronic toxicity tests based on the results. If the results indicate the VMSs have low toxicity, then they should be removed from the Group II category.

The ODCs should be deleted from the Group II category and be defined separately. Some of the chemicals in the Group I category, in particular all the HCFCs, should be pulled from the Group I category and defined as ODCs separately. As you know, these chemicals contribute to ozone depletion and their production will be banned under the Clean Air Act Amendments. Production of HCFC-141b, for instance, will be banned in 2005 because the chemical has an ozone depletion potential at least equal to that of TCA. Because the HCFCs are already slated to be banned, they should be pulled out of Group I and categorized under the ODC category with the other ozone depleting chemicals.

The Group II Exempt Compound category should be retained for chemicals that have toxic problems but are not fully regulated by toxics regulations. These would include methylene chloride, PERC, PCBTF and the VMSs. Calling these chemicals out in a separate category signals that, while they are not ozone precursors, they may have toxicity problems. It is a message to users that there may be other problems with these chemicals and the District, in exempting them from VOC regulations, is not necessarily recommending or sanctioning their uncontrolled use.

In summary then, I am requesting that the District go forward with the exemption of PERC from VOC regulations but delay the exemption until the effective date of the Hydrogenated Solvents Degrassing NESHAP. This delay will ensure better control of PERC emissions from degreasers. It will also give the District more time to develop and implement an outreach program for many of the small businesses that are not currently aware of the pending degreasing requirements. I am also requesting that the District remove ODCs from the Group II exempt compound category but retain the category for exempt toxics. Chemicals that belong in this category are methylene chloride, PERC, PCBTF and VMSs. If the producers provide data indicating they are not toxic, the chemicals can be moved from Group II to Group I. This will give a clear signal that the District does not necessarily recommend unrestricted use of certain exempt chemicals. I am also suggesting that the HCFCs be moved from the Group I category to the ODC category along with other ODCs like TCA and the CFCs.

I appreciate the opportunity to comment on this important rule. If you have questions or would like to discuss any of the issues further, please call me at (310) 453-0450.

Sincerely,

Katy Webb, Ph.D.

Executive Director

Enclosures

cc: Steve Smith

Moham Balgopalan

THE HALOGENATED SOLVENTS INDUSTRY ALLIANCE COMMENT LETTER #1 RESPONSES:

- 1-1 The SCAQMD appreciates the background information provided by the commentator. In addition to the ARB research, SCAQMD staff has done an extensive study by contacting coating formulators representing a variety of industries from solvent and electronic component cleaning to different substrate coaters.
- 1-2 The SCAQMD has conducted an extensive phone survey regarding potential increased usage of perchloroethylene. Based upon changes to PAR 102 since the release of the Notice of Preparation and the results of the phone survey, the EA now concludes that there would not be a significant increase in perchloroethylene usage as a result of the proposed amendments. The commentator is referred to the "Air Quality" discussion in Chapter 2.
- 1-3 The SCAQMD appreciates the background information provided by the commentator. Also, refer to the response to comment #1-2.
- 1-4 The SCAQMD is aware of the degreasing NESHAP and has revised the implementation date for perchloroethylene to coincide with the December 1997 date in the federal NESHAP. This means that perchloroethylene will no longer be considered a volatile organic compound (VOC) effective December 1997, rather than the date of rule adoption. Based upon this change to the rule, it is no longer expected that perchloroethylene usage in degreasing applications will increase.
- 1-5 The original estimate of perchloroethylene usage increases did not include use at dry cleaning facilities. As noted by the commentator, no increases in perchloroethylene usage are expected from this source category.
- 1-6 Perchloroethylene usage will no longer be controlled under Rule 1124 following the implementation of the proposed amendments, although perchloroethylene was already exempt for chemical milling operations. However, of the four chemical milling operation in the district, two have already installed carbon adsorption and two already use compliant products that have not been formulated with perchloroethylene. It is unlikely that the two latter facilities would revise their already compliant formulation to use perchloroethylene. Further, it is unlikely that the remaining two facilities would choose to use perchloroethylene and remove their carbon adsorption device because it is being used to control hydrocarbons other than perchloroethylene. Therefore, even though the aerospace NESHAP is not promulgated until September 1998 for this source category, the SCAQMD does not find a significant increase, even short-term, from these facilities.
- 1-7 Hazardous air pollutants in film cleaning and wet printing operations will be regulated under the upcoming degreaser NESHAP. Increased usage by this source category is not expected.

and, therefore, no adverse environmental impacts are expected from the film cleaning operations due to the proposed amendments.

1-8 Thank you for your background information regarding Proposition 65 and data gathered by ARB and EPA. The SCAQMD also evaluated the potential for increases in perchloroethylene usage in the areas of paints, coatings, and adhesives. The SCAQMD did not identify any significant increases in perchloroethylene usage from these source categories. The commentator is referred to the response to comment #1-2.

1-9 Aerosol brake cleaners are not regulated by the SCAQMD. Therefore, the amendments will have no bearing on perchloroethylene usage in the district. The SCAQMD agrees that perchloroethylene is widely used by auto repair facilities in the district and that this widespread usage will continue, regardless of the proposed amendments. Based upon the current widespread usage of perchloroethylene in aerosol brake cleaners, it is not anticipate that PAR 102 will result in increased usage from this category.

1-10 The SCAQMD is unclear regarding specifically where it incorrectly characterized the carcinogenic effects of perchloroethylene. Regardless, the commentator is referred to the response to comment #1-2.

1-11 The SCAQMD has revised its analysis of potential water quality impacts since the release of the NOP/IS based upon changes to PAR 102 and a subsequent survey of potential perchloroethylene users. As a result, the SCAQMD does not believe there will be significant water quality impacts as a result of implementing the proposed amendments.

THE INSTITUTE FOR RESEARCH AND TECHNICAL ASSISTANCE COMMENT LETTER #2 RESPONSES:

2-1 Thank you for your suggestion. The SCAQMD has revised the implementation date for the delisting of perchloroethylene to December 1997, to be consistent with the implementation of the federal NESHAP.

2-2 Please refer to the response to comment #2-1. The SCAQMD is currently promulgating amendments to Rule 1122 to incorporate provisions of the degreaser NESHAP for the purposes of consistency. This effort is expected to include public outreach regarding NESHAP implementation and requirements.

2-3 Thank you for the background information regarding perchloroethylene usage, in degreasing operations. The proposed rule has been modified since the release of the NOP/IS to delist perchloroethylene to coincide with the December 1997 implementation of the federal NESHAP.

The federal NESHAP became effective for new or modified sources after November 29, 1993. After November 29, 1993, new or modified sources have until December 2, 1994, to comply with the NESHAP provisions. After December 2, 1994, new or modified sources must comply with the NESHAP upon start up. Sources in existence prior to November 29, 1993, have until December 2, 1997 to comply with the NESHAP provisions.

On August 11, 1995, the AQMD mailed out notices to all permit holders of degreasing equipment. Sources were reminded of: (1) the federal initial notice requirement (with forms provided); (2) the compliance noticing requirements for new equipment; (3) the differences between the NESHAP and AQMD rules; (4) the compliance and reporting deadlines; and (5) a District helpline was established and used. A second mail out was conducted on July 19, 1996 to all facilities that did not respond to the first mail out.

In addition, the District prepared a 28-page permitting guideline for its own use in implementing the NESHAP. Staff has begun a facility inspection program for Title V facilities subject to the NESHAP. Staff is currently working on Cycle A issuance of Title V permits with conditions that reflect NESHAP requirements and have issued single permits with a condition reflecting NESHAP compliance for newly installed equipment.

In addition, an amendment to Rule 1122 is scheduled to be publicly heard on September 12, 1997. The provisions of Rule 1122 will meet or exceed the federal NESHAP. As a result, compliance with Rule 1122 provisions will guarantee compliance with the federal NESHAP requirements by compliance options included either the use of low VOC materials or utilization of state-of-the-art low emission equipment. Rule 1122 would also provide simplified provisions for monitoring, recordkeeping, and reporting that will meet NESHAP standards.