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**INDEPENDENT REGULATORY REVIEW COMMISSION**  
333 MARKET STREET, 14TH FLOOR, HARRISBURG, PA 17101

November 29, 1999

Honorable James M. Seif, Chairman  
Environmental Quality Board  
Rachel Carson State Office Building  
400 Market Street, 16th Floor  
Harrisburg, PA 17105

Re: IRRC Regulation #7-346 (#2058)  
Environmental Quality Board  
Solvent Cleaning Operations

Dear Chairman Seif:

Enclosed are our Comments on the subject regulation. They are also available on our website at <http://www.irrc.state.pa.us>.

Our Comments list objections and suggestions for consideration when you prepare the final version of this regulation. We have also specified the regulatory criteria which have not been met. These Comments are not a formal approval or disapproval of the proposed version of this regulation.

If you would like to discuss these Comments, please contact Mary Lou Harris at 772-1284.

Sincerely,

A handwritten signature in black ink that reads "Robert E. Nyce". The signature is written in a cursive style.

Robert E. Nyce  
Executive Director

REN:wbg

Enclosure

cc: Sharon Freeman  
Barbara Sexton  
Office of General Counsel  
Office of Attorney General  
Lee Ann Labecki

# **Comments of the Independent Regulatory Review Commission**

**on**

## **Environmental Quality Board Regulation No. 7-346**

### **Solvent Cleaning Operations**

**November 29, 1999**

We have reviewed this proposed regulation from the Environmental Quality Board (EQB) and submit for your consideration the following objections and recommendations. Subsections 5.1(h) and 5.1(i) of the Regulatory Review Act (71 P.S. § 745.5a(h) and (i)) specify the criteria the Commission must employ in determining whether a regulation is in the public interest. In applying these criteria, our Comments address issues that relate to economic impact, reasonableness, need and clarity. We recommend that these Comments be carefully considered as you prepare the final-form regulation.

#### **1. General Applicability of the Regulation – Reasonableness, Need and Economic Impact.**

Through this rulemaking, the EQB has proposed a comprehensive, aggressive program to reduce volatile organic compound (VOC) emissions. This regulation applies to a broad range of industries which use solvents in their cleaning operations. In the preamble, the EQB estimates that industry in Pennsylvania will save \$7.3 million the first year this regulation is in place, and \$14.6 million annually in subsequent years. According to the EQB, the regulation will result in slight increases to industry's operating costs. It asserts these increases will be offset by reduced evaporative loss of solvents as a result of requiring the use of lower volatility solvents.

Commentators disagree with the EQB's cost estimates and the impact the changes would have on their industries. They are concerned about the uniform applicability of the rulemaking, including the absence of any exceptions or exemptions.

We have the following concerns about the impact of this rulemaking:

- The EQB has not estimated the level of VOC reduction that will be achieved through the implementation of the regulation, nor has the EQB quantified the extent to which it will help Pennsylvania attain the required VOC reductions under the Clean Air Act.
  - Prior to imposing these stringent requirements for solvent cleaning operations, the EQB should estimate what the anticipated VOC reductions will be.
- The EQB is applying the federal maximum achievable control technology (MACT) for hazardous air pollutant (HAP) solvents to both HAP and non-HAP solvents. According to the preamble, the EQB is attempting to discourage operators from converting to non-HAP solvents to avoid the more stringent MACT requirements. However, the federal MACT only applies to six halogenated HAP solvents.

- The EQB should explain the compelling public interest and environmental benefit of extending the more stringent MACT requirements to non-HAP solvents.
- Other states which have imposed requirements for using lower volatility solvents, such as California, Illinois and Maryland, have higher volatility standards, exemptions or limited applicability. For example, the lower volatility solvent requirements in some other states apply only to cleaning metal parts. In addition, other states exempt the electronics industry where low volatility solvents are insufficient to remove films and coatings applied during the manufacturing process. The EQB should:
  - Justify the reasonableness of imposing on Pennsylvania businesses what may be the most stringent operating requirements in the United States for cleaning machines. What additional VOC reductions will be achieved by applying the regulation to the cleaning of all parts instead of limiting the applicability to the cleaning of metal parts?
  - Consider exempting the electronics industry and limiting applicability of the regulation to cleaning metal parts.
  - Provide a more accurate estimate of associated costs.
- Existing regulations, in Sections 129.63(a), (b) and (c) contain a 10 square foot *de minimus* threshold before the regulations apply. The EQB has deleted the *de minimus* threshold in the proposed regulation. Consequently, even small amounts of solvent would be regulated. The Department of Defense Regional Environmental Coordinator (DOD REC) for Federal Region III commented that the regulation will place an undue hardship on operators with Title V permits. According to DOD REC, operators with Title V permits will have to amend their permits to include small cold cleaning machines which were previously exempt. The EQB should:
  - Explain the reasonableness of eliminating the *de minimus* threshold and for not applying some smaller exemption threshold.
  - Provide an estimate of the amount of VOC reduction that will result from removing the *de minimus* threshold.
  - Clarify the effect of this rulemaking on Title V permits. Will operators have to revise their existing Title V permits to include small degreasers that were previously exempt because they were considered insignificant emission sources?
  - Justify the costs and recordkeeping requirements associated with permit revisions resulting from the elimination of the *de minimus* threshold.
- The EQB asserts that industry will realize significant savings by using lower volatility solvents. However, commentators dispute this assertion. They state that low volatility solvents take longer to evaporate, which will lengthen drying times for cleaning operations. Consequently, by using low volatility solvents some industries could be faced with modifying their manufacturing processes to account for longer drying times and making equipment modifications or replacements. The EQB should:
  - Estimate the costs of manufacturing and equipment modifications associated with compliance.

- Address situations where no suitable low volatility solvent is available.
- Finally, commentators assert that the EQB's savings estimates do not take into account the cost of finding solvent replacements to comply with the regulation. For example, Armstrong Industries estimates an initial compliance cost of \$500,000 and an additional \$220,000 of annual operating costs at one facility as a result of the proposed regulation.
  - The EQB needs to revise its cost estimates, taking into account commentators' concerns.

## 2. Section 121.1. Definitions – Reasonableness and Clarity.

### *Cold cleaning machine*

This definition includes all solvents with >5% solvent or HAP by weight. Commentators assert this standard includes solvents that aren't volatile and don't contribute to ozone formation. Did the EQB intend to include solvents that aren't volatile and don't contribute to ozone formation? If so, the EQB should justify including these solvents. If not, the definition should be revised to exclude them.

The proposed definition also differs from the federal regulatory definition of that term (40 CFR (Subpart T) § 63.461). The EQB should amend the definition to include all heated, non-boiling VOC solvent cleaners, or explain why it has not adopted the federal definition.

### *Dwell and Dwell time*

The definition of "dwell" applies to "[H]olding parts ... above the solvent vapor zone." "Dwell time" refers in part to "[T]he period of time between when a parts basket is placed in the vapor zone . . ." (emphasis added). These provisions are inconsistent and should be clarified in the final-form regulation.

### *Solvent cleaning machine idle time*

Although this term is defined, we have not found it used in the regulation. If the term is retained in the final regulation, it should be used in the text of Section 129.63 to improve clarity and the internal consistency of the regulation. If it is not used in Section 129.63, it should be deleted.

### *Solvent vapor zone and Vapor zone*

The terms "solvent vapor zone" (in the definition of "dwell") and "vapor zone" (in the definition of "dwell time") are undefined terms that appear to have the same meaning. Either one or the other, but not both, should be defined and used.

### *Solvent vapor and Solvent vapor layer*

Similarly, the undefined term "solvent vapor" is used in the definition of "freeboard refrigeration device" and the undefined term "solvent vapor layer" is used in the definition of "solvent/air interface." If the terms have the same meaning, one term should be defined and that term should be used consistently throughout the final regulation. If they are different, each term used should be defined.

### *Vapor cleaning machine*

This definition provides that the in-line machine must *boil* the liquid solvent to generate the vapor used in the cleaning or drying cycle. That part of the definition is consistent with federal regulations (at 40 CFR (Subpart T) § 63.461). However, the additional phrase “or that heats liquid solvent” is not included in the federal definition. The EQB should explain why it has diverted from the federal definition.

### **3. Section 129.63(a). Cold Cleaning Machines – Reasonableness and Need.**

#### *Subsection (a)(3)*

Subsection (a)(3)(v) prohibits the use of air agitated solvent baths. However, the corresponding provision in the federal MACT (40 C.F.R. § 63.462(c)(6)) does not preclude their use. The EQB should explain why it is reasonable and necessary to prohibit air agitated solvent baths.

#### *Subsections (a)(4) and (5)*

Subsection (a)(4) prohibits the use of a solvent with a vapor pressure of 2.0 millimeters of mercury (mm Hg) or more, measured at 20° C (68° F) containing VOCs one year after implementation of the proposed regulation. Subsection (a)(5) prohibits solvents with a vapor pressure of 1.0 mm Hg or greater two years after implementation of the proposed regulation. These proposed requirements for low vapor pressure solvents are not contained in the federal MACT.

The EQB needs to address the following issues in the final regulation:

- Are effective solvents that meet these pressure requirements widely available to industry?
- Will the use of solvents that meet these criteria result in a significant VOC reduction?
- What other states have requirements similar to those proposed in this rulemaking? Do they apply statewide to all industries? Do they apply only in specific regions or non-attainment areas?
- If the final regulation establishes a program with no exceptions or only a few exceptions, will a waiver process be included to address individual situations?

### **4. Section 129.63(d). Airless cleaning machines and airtight cleaning machines - Clarity.**

Subsection (d)(3) requires the operator of a machine to operate the machine in conformance with “good air pollution control practices.” To improve clarity, the EQB should define or reference what these practices are.

### **5. Section 129.63(e). Hand-wipe cleaning operations - Reasonableness and Clarity.**

Subsection (e) and the definition of “hand-wipe cleaning operation” are adapted from federal regulations specific to aerospace manufacturing. As such, they apply only to owners and operators of commercial, civil, or military aerospace original equipment manufacturing and rework operations. The EQB’s proposal, on the other hand, would apply to all sources.

- Did the EQB intend to include all hand-wipe cleaning operations, such as use of a computer screen cleaning pad, or general janitorial services, under its provisions? If so,

how does the EQB intend to enforce such a provision? The EQB should consider establishing a *de minimus* level or an exemption for consumer uses. In doing so, it should include a definition for “consumer product.”

- References to “wipe rags” at Section 129.63(c)(vi) and (d)(7)(v) should be revised to reflect the “hand-wipe” terminology in this section and the definition of “hand wipe cleaning operations.”
- How will requirement for placing hand-wipes in closed containers for disposal and recycling ultimately reduce the level of VOC emissions?

#### **6. Section 129.63(f). Alternative provisions for solvent cleaning machines – Clarity.**

We found the following clarity concerns in Subsection (f):

- The first sentence states that the section applies to **all** solvent cleaning machines and that compliance is demonstrated by complying with Paragraph (1) or (2). The chart in Paragraph (1) does not include cold cleaning machines. Did the EQB intend to include alternative provisions for Subsection (a), cold cleaning machines?
- The chart in Paragraph (1)(ii) includes a category for new in-line solvent cleaning machines. What is the definition of “new”? Either a definition for “new” or a date, such as purchased after publication of the final rulemaking, should be added.
- Subsection (f)(3) references emission limits determined using Table IV. This appears to be a misprint and should read “Table 6” for consistency with the title of the table in the proposal.
- The tables are not numbered consistently. Although there are two tables in the proposal, the first table is not numbered and the second table is labeled “Table 6.” The EQB should either explain this numbering sequence or label all tables sequentially.

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# INDEPENDENT REGULATORY REVIEW COMMISSION

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**To:** Shirley Hartman  
or Cindy Lauderbach  
or Denise Henke

**Agency:** Department of Environmental Protection  
**Phone:** 7-2814  
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**From:** Kristine M. Shomper  
Deputy Director for Administration  
**Company:** Independent Regulatory Review Commission  
**Phone:** (717) 783-5419 or (717) 783-5417  
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**Date:** November 29, 1999  
**# of Pages:** 6

**Comments:** We are submitting the Independent Regulatory Review Commission's comments on the Environmental Quality Board's regulation #7-346. Upon receipt, please sign below and return to me immediately at our fax number 783-2664. We have sent the original through interdepartmental mail. You should expect delivery in a few days. Thank you.

Accepted by: Shirley Hartman Date: 11/29/99