



Original: 2058
Mizner
cc:

Harris
Nanorta
Wilmarth
Sandusky
Legal



October 26, 1999

Environmental Quality Board
15th Floor, Rachel Carson State Office Building
P.O. Box 8477
Harrisburg, PA 17105-8477

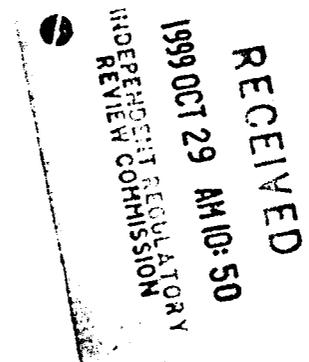
Re: Proposed Rulemaking, 25 PA. CODE CHS. 121 AND 129, Solvent Cleaning Operations

Enclosed you will find comments from Armstrong World Industries, Inc. concerning the proposed rulemaking for Solvent Cleaning Operations, published in the Pennsylvania Bulletin on August 28, 1999. In general Armstrong is supportive of the Department of Environmental Protection's efforts to protect the environment in a manner that satisfies all citizens of the Commonwealth. However, in these regulations there are several issues which greatly concern us and, we believe, place an undue burden on the regulated community while not achieving the level of environmental protection desired. In particular, this regulation conflicts with the Department's Regulatory Basics Initiative, and goes well beyond existing regulations in other states.

We thank you in advance for your attention to our comments, and should you have any questions, feel free to contact me at 717 - 396 - 5589 or John Ackiewicz at 717 - 396 - 5373.

Sincerely,

Peter A. Scaccia
Director, Environment, Health & Safety



Comments on the Proposed Solvent Cleaning Operations Rulemaking
Submitted by Armstrong World Industries, Inc.

On August 28, 1999, the Department published in the PA Bulletin draft regulations which would amend 25 PA. Code Chapters 121 and 129. Armstrong World Industries, Inc., is supportive of regulations which improve the environment and take into account the interests of all stakeholders in Pennsylvania. However, these proposed regulations will not, in our opinion, achieve a measurable environmental benefit, nor are they cost effective. In fact, several provisions in these regulations will lead to degradation of the environment, create potential safety issues, and increase the regulatory burden on businesses in the State in terms of time and money, while diluting the limited resources of the Department. Of particular concern is that these regulations provide no exclusions, therefore any container such as a beaker, or a 5 gallon bucket could be considered a cleaning machine and covered by these draft regulations. Our specific comments follow below.

Page 4661, Section D. Background of the Proposed Amendments, fifth paragraph. In this section, it appears that the Department is justifying these proposed regulations in order to discourage operators from switching from hazardous air pollutant solvents(HAPS) to non HAPS which could contain volatile organic compounds(VOCs). The federal MACT standard referred to in this paragraph regulates the following solvents: methylene chloride, perchloroethylene, trichlorethylene, 1,1,1-trichloroethane, carbon tetrachloride, and chloroform. These chemicals were also selected as 6 of the 17 chemicals listed by EPA for inclusion in it's 33/50 program(a voluntary emissions reduction program). These chemicals also require reporting under the SARA 313 Form R program. If these solvents required disposal, they would be managed under RCRA. Therefore, industry already has ample reasons for trying to use alternative, less hazardous solvents. Two of these solvents, methylene chloride, and 1,1,1-trichloroethane are considered non-VOCs(40 CFR Part 51; 51.100(s)(1)). Therefore, if it is the Department's intent to discourage operators from switching to alternative solvents which could contain VOCs, what could happen is that operators will choose to remain using or switch to HAPs which are not VOCs, and hence not covered by this regulation. This will increase the air emissions of these hazardous air pollutants, increase worker exposure to these materials, increase waste disposal costs, while negating any environmental benefit claimed by these draft regulations.

Page 4662, Section F. Benefits, Costs and Compliance. The Department claims that benefits to industry will result in annual savings of \$14.3 million annually due to reduce emissions. We are concerned with the accuracy of this number. In fact, we believe air emissions will remain the same or increase. Low vapor pressure solvents require more time to dry and may not be as effective as current solvents, therefore an operator either waits longer for the same amount of solvent to dry, or would use more of the low vapor pressure solvent. If this was a VOC, this could actually increase emissions. These estimated savings do not appear to include the cost of finding solvent replacements and increased operating and equipment costs, which could very easily more than offset these savings claims. Estimated costs to Armstrong are provided below. This also assumes that it is technologically possible to find suitable replacements for all applications, when this may not be the case.

Page 4665, 129.63 (a) (4) and (5). Time frames are provided for eliminating the use of solvents with a vapor pressure greater than 1.0 mm Hg(at 20 C) containing VOCs, over a two year period. As discussed previously, this eliminates a large number of solvents already in use, or potential alternatives to the federal MACT solvents. This regulation could drive the regulated community toward the use of halogenated solvents such as methylene chloride and 1,1,1-trichloroethane. Also, it is unclear whether suitable alternative cleaning solutions exist for all of the myriad cleaning applications. The regulated community is therefore faced with the situation of complying with a standard for which there may be no means available of complying. For example, numerous VOC solvents are used in various cleaning applications at the Armstrong World Industries, Inc. Innovation Center. The potential labor cost to investigate and develop alternative solvents is estimated at \$85,000. This assumes it is even possible to find successful alternatives. Another example from the Innovation Center is a printing application which requires the use of a solvent

blend containing 90% methylene chloride and 10% MEK. The Innovation Center has been trying for approximately 5 years to find a replacement without success. Even if this replacement contained a VOC solvent, it would be more protective of the environment if it was a non HAP. However, if this regulation went into effect, we may be forced to halt replacement efforts, and possibly switch to a 100% methylene chloride solution. If we were successful in finding less than 1.0 mm Hg cleaning solvents, we believe that due to increased cleaning time required by low vapor pressure solvents, labor costs could increase. We also anticipate having to modify our Title V synthetic minor application, and assess impacts in other regulatory areas. As estimated cost to do this is **\$10,000 to \$20,000**.

Similar estimates can be derived for other Armstrong plants located in Pennsylvania. Costs at these facilities could increase due to labor involved in finding replacement solvents, increased downtime since low vapor pressure solvents are not as effective in cleaning, and costs associated with increased waste disposal if chlorinated solvents must be used. Capital could be required for storage of a separate cleaning solvent. Expense could be incurred in modifying air permits and assessing the regulatory impact in other areas.

- **Beech Creek Facility**(Rotogravure printing, surface coating)--**\$350,000**--Possible increased cost due to capital required for installing a new solvent tank and reclaim system. Possibility of added downtime and changeover time. This assumes it is technically possible to find replacements. Additionally, all air exhausted from this plant passes through an incinerator which has a destruction facility of 98%. The incinerator will need to be run regardless of whether solvents are used for cleaning since the manufacturing process uses solvent based raw materials. These materials are the bulk of the emissions to the incinerator, the degreasing solvents are a minor component. Therefore, the plant could incur an increase in costs with negligible if any reduction in air emissions. This plant operates under 100% capture, all air inside the production facility is discharged to the incinerator.
- **Lancaster, PA Plant**(Floor manufacturing)--Possible increased operating cost due to potential for added downtime and changeover time between product runs. Possible capital for installing a new solvent tank and reclaim system. This assumes it is technologically possible to find replacement solvents. The Lancaster Plant has VOC control devices such as incinerators. The majority of VOC emissions are from solvent based raw materials such as inks, the degreasing solvents are a minor component. Therefore, regardless of whether or not low vapor pressure solvents are used, abatement equipment will need to be operated. Again, this plant could incur an increase in cost with little if any reduction in actual air emissions and little benefit to the environment.
- **Innovation Center**(Lancaster, PA)--Estimated cost of **\$100,000** as described above.
- **Marietta, PA Ceiling Plant, Beaver Falls, PA Ceiling Plant**--Estimated cost of **\$10,000** due to possible hazardous waste disposal cost increase, assess impacts in other environmental areas.
- **Triangle-Pacific Cabinet Plant**(Thompsontown, PA)--Triangle-Pacific was acquired by Armstrong in 1998. This plant manufactures cabinets. A critical part of the manufacturing process is using solvents to soak and clean spray guns which apply finishes. If these spray guns are not sufficiently clean, the product will not meet desired specifications. If a suitable replacement cleaning solvent cannot be found, then these spray guns would have a useful life of about one month. This could result in an estimated annual cost of about **\$220,000**. Also, there could be estimated additional costs of about **\$10,000 to \$20,000** for evaluation the Title V permit for the facility, and other environmental regulations, environmental plans, etc.

Potential estimated Armstrong Cost=\$500,000 one time costs, plus \$220,000 estimated potential annual operating costs at one facility.

Because of this cost, and technological concerns, we recommend that 129.63 (a) (4) and (5) be dropped. We believe the other proposed language in 129.63 (a) is sufficient to achieve desired environmental benefits. Slower drying solvents could actually increase worker exposure to chemicals, and require the use of a greater volume of solvent to achieve the same level of cleaning. As an alternative, we would support replacement language which sets up a voluntary program like EPA 33/50. Such an alternative could read: "Operators using solvents with a vapor pressure less than 1.0 mm Hg measured at 68 F will be exempt from the requirements in 129.63 (a)". Although operators already have incentives to reduce usage through waste minimization programs and requirements, this provides another incentive to the regulated community to change. We also recommend that the 10 ft² opening exemption for cleaning machines be restored. This will ensure resources are devoted to reducing emissions from larger VOC sources.

Page 4665, 129.63 (6) and (7)--This section specifies recordkeeping requirements for solvent suppliers and operators. Health & Safety regulations under OSHA already require suppliers and users of solvents to have an up to date MSDS. Therefore these requirements are redundant and should be removed from the final regulations.

Page 4667, 129.63(f)--This section provides alternative provisions for solvent cleaning machines. Emission limits are specified for Batch Vapor and In-Line solvent cleaning machines. No limits are specified for cold cleaning machines, therefore operators may be driven to vapor degreasers. This could increase equipment costs, present safety risks, and possibly increase emissions, as solvent that was formerly in liquid form is now used as a vapor. Small vapor degreasers which could clean small pumps and other small pieces of equipment cost approximately \$15,000. Larger units to clean rolls, etc. could run on the order of \$33,000 per unit. If plants, require multiple units, it can be anticipated that this could be a significant cost to industry throughout the state. This section is further justification for eliminating 129.63 (a) (4) and (5), due to added financial burden and safety concerns.

At a minimum, this section of the regulations should include similar alternative provisions for cold cleaning machines. Section 129.63(f) states that "This section applies to all solvent cleaning machines. As an alternative to complying with subsections (a)-(d),...", however 129.63(f) does not supply an alternative for cold cleaning machines(a).

In summary, these regulations, and in particular Section 129.63 (a) (4) and (5) are contrary to the Department's Regulatory Basics Initiative. These proposed regulations go well beyond the federal requirements by extending the MACT standard to solvents beyond the 6 covered by EPA's current standard, and prohibiting the use of a large number of solvents in cold degreasing operations over a two year period. In fact, if this regulation should go into effect, PA sources would face regulatory burdens well beyond those for similar sources in almost all other states.

Operators in Pennsylvania already operate under stringent requirements from the State's operating permit program. The facilities that most likely use larger quantities of cleaning solvents would already be covered by PA's RACT and Title V programs, and have emission limits. Selecting a specific area of solvent usage for regulation adds an additional layer of requirements to Pennsylvania's already thorough air regulatory program. Mandating solvent changes could require modifications to Title V permits, thereby increasing demands on industry and the Department. In fact, the Department appears to be moving in a more restrictive and less cost-effective direction than EPA. In the federal register dated August 18, 1999, EPA proposed to continue a deferral of Title V operating permit requirements for small sources of HAPs subject to NESHAPs for several industry categories, including halogenated solvent cleaning machines. Part of EPA's reasoning was to avoid placing additional burden on permitting agencies. However, Pennsylvania is proposing to regulate not only HAPs but Non-HAPs as well.

The reasons listed above are sufficient to merit further consideration and revision of these proposed regulations. Armstrong World Industries, Inc. in general supports the Departments efforts to meet EPA's NAAQS ozone requirements for the state. However, we disagree with the approach taken in these regulations. Page 4661, Section D. states that it was the recommendation of both the Southwest and

Southeast Ozone Stakeholders Groups to revise the VOC requirements related to solvent cleaning operations. This is not correct, as the Southwest Stakeholders Group's final report, dated January 16, 1997, on page 10 states: "The Working Group encourages the use of citric-based and water-based solvents for commercial and industrial sources using VOC-containing solvents during the production, repair, maintenance or servicing of parts, products, tools, machinery, equipment or general work areas". No where in this statement is a recommendation to develop a more stringent regulation. Additionally, two more work groups, the Central Region and Lehigh Valley have not yet finalized their recommendations.

It also appears that input from an important part of the regulated community was lacking. The third paragraph in this section states that a technical work group was formed to compose the regulatory language. It is stated that this group was composed of members from regulatory agencies, environmental groups, and solvent and equipment suppliers. Therefore, it must be assumed that the regulated community most impacted by this regulation, i.e. the solvent users, were not consulted with nor given the opportunity to have input into the drafting of these proposed regulations.

The Southeast Stakeholders Group's January 16, 1997 report includes an estimated VOC reduction from degreasing at 5.9 tons per day. It appears based on a potential cost to Armstrong alone of \$500,000 and \$220,000 (possible increase in operating cost at one facility) that efforts could be better spent elsewhere to achieve the Department's objectives relative to ozone reduction. For example, on January 21, 1999, the EPA published final clarifying text and amendments in the Federal Register to regulations of Organic Air Emission Standards for Tanks, Surface Impoundments, and Containers for Hazardous Waste Treatment, Storage, and Disposal Facilities and Hazardous Waste Generators. Has DEP recorded VOC reductions due to these rules? This may give DEP the quantity of reductions that they are trying to achieve through the draft solvent cleaning regulation.

Again, we believe that these draft regulations are contrary to the Regulatory Basics Initiative, and will not meet the Department's objectives in achieving ozone reduction in a cost effective manner. We believe our comments point out where changes can be made to the regulations to allow the resources of the Department and the regulated community to be focused on more significant environmental issues.

EOB SUMMARY

Armstrong World Industries, Inc. has reviewed the draft regulations published in the PA Bulletin on August 28, 1999, which propose to modify 25 PA. CODE CHS. 121 and 125, pertaining to solvent cleaning operations. Our comments can be summarized as follows:

Section 129.63 (a) (4) and (5) propose the elimination of solvents with vapor pressures above 2.0 mm Hg and 1.0 mm Hg over a 1 and 2 year period respectively. We request that these provisions be deleted from the final regulation because:

The potential cost to Armstrong is estimated at \$500,000 one time costs, plus \$220,000 estimated potential annual operating costs at one facility.

It may not be technologically feasible to find suitable replacements for all applications.

This regulation could have a negative environmental effect. Operators could be driven towards using HAPS such as methylene chloride and 1,1,1 trichloroethane, which are not VOC's since they are not photochemically reactive. This is contrary to the goals of the EPA 33/50 program which discourages emissions of these materials. EPA has also proposed to continue deferring area sources of HAPs from Title V operating permit requirements. These area sources include halogenated solvent cleaning machines.

Solvent users may be forced to switch from cold cleaning to vapor degreasers, at costs ranging from \$15,000 to \$33,000 per machine. This may need to be done if solvent replacements for cold cleaning machines could not be found.

Suitable replacement language for Sections 129.63(a) (4) and (5) would be: "Operators using solvents with a vapor pressure less than 1.0 mm Hg measured at 68 F will be exempt from the requirements in 129.63 (a)". This provides a voluntary incentive to use low vapor pressure solvents. We also recommend that the 10 ft² opening exemption for cleaning machines be restored.

Section 129.63 (6) and (7). This section specifies recordkeeping requirements for solvent suppliers and operators. Health & Safety regulations under OSHA already require suppliers and users of solvents to have up to date MSDS. Therefore these requirements are redundant and should be removed from the final regulations.

Section 129.63(f). Include an alternative provision for cold cleaning machines.

Contrary to what is stated on page 4661, Section D, the Southwest Ozone Stakeholders Group does not recommend regulatory changes in their report dated January 16, 1997. Also, the Lehigh Valley and Central Region Stakeholders Groups have not presented their recommendations.

Also in Section D, the Department states that a technical group was formed to draft these regulations. This group was composed of members from regulatory agencies, environmental groups, and solvent and equipment suppliers. Therefore, it must be assumed that the regulated community most impacted by this regulation, i.e. the solvent users, were not consulted with nor given the opportunity to have input into the drafting of these proposed regulations. Armstrong would be pleased to join in a reg-neg process to develop workable solvent cleaning regulations.

Lastly, these draft regulations are contrary to the Department's Regulatory Basics Initiative. Significant costs are being imposed on the regulated community, and resources of both the Department and industry are being diverted from areas which could achieve greater environmental benefit. Industries in PA would, under these proposed regulations, face significantly more stringent requirements than industries in almost all other states.

Specialty Gas Division
Air Products and Chemicals, Inc.
P.O. Box 351, R.R.1
Tamaqua, PA 18252
(570) 467-2981

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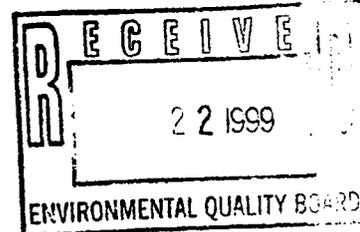
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INDEPENDENT REGULATORY
REVIEW COMMISSION

AIR
PRODUCTS 

20 October 1999

Honorable James Seif, Chairman
Environmental Quality Board
Rachel Carson State Office Building
15th Floor
P.O. Box 8477
Harrisburg, PA 17105-8477



Original: 2058

Mizner

cc:

Harris
Nanorta
Wilmarth
Sandusky
Legal

Re: Proposed Rulemaking Comments
Solvent Cleaning Operations

Dear Chairman Seif:

Air Products and Chemicals, Inc. is pleased to have the opportunity to comment on the Environmental Quality Board's proposed amendments to the degreasing operations rule. These proposed amendments were published in the 28 August 1999 Pennsylvania Bulletin. By way of background, Air Products employs 5,000 people at twenty manufacturing, distribution, laboratory and office locations throughout Pennsylvania, including our world headquarters complex near Allentown. Major business areas are industrial gases, specialty gases, specialty chemicals and environmental and energy systems. Many of our product lines are "green" products and services that enable our customers to reduce the environmental impact of their operations. As you are aware, much of our research and development work is dedicated to finding solutions to serious environmental problems.

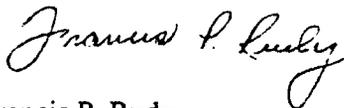
While Air Products supports the general principle of reducing the volatile organic compounds that are emitted from solvent cleaning operations, we believe that this proposed rulemaking is overly burdensome and does not consider the needs of all solvent cleaning operations. Therefore, Air Products requests that the EQB take into account the following comments during their consideration of the final-form regulations:

- The applicable requirement for equipment that has a degreaser opening of greater than 10 ft² should not be removed from §§129.63(a), (b) and (c). By removing this exception, overly burdensome regulations will be applied to equipment that has a relatively small impact on the aggregate VOC emissions from solvent cleaning operations.

- Despite the recent successes of more environmentally suitable solvent substitutes (aqueous-based cleaners) the alternatives do not address the requirements of all degreasing applications. Certain solvent cleaning operations must achieve a cleaning standard to very exacting specifications to ensure satisfactory safety performance. This is often necessary because the cleaned parts are exposed to highly reactive substances, such as strong oxidizers. In these circumstances, it is also important that the solvent has evaporated completely. Use of very low vapor pressure solvents creates a substantial risk that the solvent will not fully evaporate, and the residue will react violently when the parts are used in these reactive atmospheres. An exception from the requirements of Section 129.63(a)(4) and (5) is required for these compelling health and safety reasons. To our knowledge no other state has imposed such a broad brush requirement for such low vapor pressure solvents without also limiting the scope of the provision.
- While the proposed regulations provide alternative compliance options for other types of degreasing, no such option is provided for cold cleaning machines. While the federal NESHAP requirements do not have alternative compliance options for cold cleaning, they also do not have the more stringent requirements in 129.63(a)(4) and (5). In addition to providing exemptions to these requirements, as noted above, the regulations should also provide some alternative means to comply with the low vapor pressure solvent requirements.

Air Products appreciates the opportunity to comment on this proposed rulemaking. A one-page summary of Air Product's comments is attached for inclusion in the EQB agenda packet. If you should have any questions or require additional information regarding this correspondence, please contact me directly at (570)467-4314.

Sincerely,



Francis P. Rudy
Sr. Environmental Coordinator

enclosures

Certified Mail: Z 090 812 129

c: Mr. Robert E. Nyce, Executive Director
Independent Regulatory Review Commission
333 Market Street, 14th Floor
Harrisburg, PA 17101

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Environmental Quality Board
Summary of Comments from Air Products and Chemicals, Inc.
Amendments to Solvent Cleaning Operations (August 28, 1999 PA Bulletin)

While Air Products supports the general principle of reducing the volatile organic compounds that are emitted from solvent cleaning operations, we believe that this proposed rulemaking is overly burdensome and does not consider the needs of all solvent cleaning operations. Therefore, Air Products requests that the EQB take into account the following comments during their consideration of the final-form regulations:

- The applicable requirement for equipment that has a degreaser opening of greater than 10 ft² should not be removed from §§129.63(a), (b) and (c). By removing this exception, overly burdensome regulations will be applied to equipment that has a relatively small impact on the aggregate VOC emissions from solvent cleaning operations.
- Despite the recent successes of more environmentally suitable solvent substitutes (aqueous-based cleaners) the alternatives do not address the requirements of all degreasing applications. Certain solvent cleaning operations must achieve a cleaning standard to very exacting specifications to ensure satisfactory safety performance. This is often necessary because the cleaned parts are exposed to highly reactive substances, such as strong oxidizers. In these circumstances, it is also important that the solvent has evaporated completely. Use of very low vapor pressure solvents creates a substantial risk that the solvent will not fully evaporate, and the residue will react violently when the parts are used in these reactive atmospheres. An exception from the requirements of Section 129.63(a)(4) and (5) is required for these compelling health and safety reasons. To our knowledge no other state has imposed such a broad brush requirement for such low vapor pressure solvents without also limiting the scope of the provision.
- While the proposed regulations provide alternative compliance options for other types of degreasing, no such option is provided for cold cleaning machines. While the federal NESHAP requirements do not have alternative compliance options for cold cleaning, they also do not have the more stringent requirements in 129.63(a)(4) and (5). In addition to providing exemptions to these requirements, as noted above, the regulations should also provide some alternative means to comply with the low vapor pressure solvent requirements.

Garner, Kim

From: Nanorta, John E. Jr.
Sent: Tuesday, November 23, 1999 3:25 PM
To: IRRC
Cc: Harris, Mary Lou; Wilmarth, Fiona E.; Sandusky, Richard M.
Subject: FW: Questions Regarding the Proposed Modifications to 25 PA Code Section 129



Degreasing Reg
Comments.doc

I received this today "out of the blue." Kim G.- please scan this in as a comment on EQB reg. #2058. Mike said the attached are a "draft" of their (late) comments on EQB reg. #2058. He said he'll be submitting a "final" version to us. I advised him to send their comments (these or a "final" version) to the irrc@irrc (etc.) e-mail address ASAP. I also recommended he send a copy to the EQB and the standing committees.

-----Original Message-----

From: Mike Ludecker [mailto:enveng@woodmode.com]
Sent: Tuesday, November 23, 1999 2:08 PM
To: 'johnn@irrc.state.pa.us'
Subject: Questions Regarding the Proposed Modifications to 25 PA Code Section 129

John:

I have decided to provide comments after all. Please give me a call when you get a chance.

Thanks,
-Mike

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REVIEW COMMISSION

Questions Regarding the Proposed Modifications to 25 PA Code Section 129.63 "Degreasing Operations"

Does the Department intend for Section 129.63 to extend to operations whose primary purpose is the removal of residual coatings or over spray from equipment whose primary purpose is the application of coatings?

Does the Department intend for Section 129.63 to extend to operations whose primary purpose is the repair of coating deemed defective by manufacturers who apply surface coatings?

Does the Department intend for Section 129.63 to extend to operations whose primary purpose is the cleaning or wash off of wood or wood composite articles, where such articles are the facilities intended end product?

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**Proposed Rulemaking 25 PA Code Chs. 121 and 129
Solvent Cleaning Operations**

Comments By:

Michael E. Ludecker, P.E.

Manager of Safety and Environmental Services

Wood Mode, Inc

Kreamer, PA

The proposed amendment to Sections 121.1 (Definitions) and 129.63 (Degreasing Operations) could have a profound impact on the hundreds of cabinet and furniture manufacturers across the state, depending on the final scope of application. The industry was unfortunately not represented in the field of "official" commentators for two reasons. First, we were not solicited for comment by the DEP as potentially affected by the regulations. This is surprising considering that the industry is one of the largest users of cleaning solvents in the state. Second, the regulations appear to be aimed primarily at degreasing operations, which would be of only limited concern to cabinet and furniture manufacturers. We do, however, appreciate the opportunity to comment in an unofficial capacity, now that the comment period is closed.

As the cold cleaning regulations apply to maintenance type parts washers, where the chief function is the removal of oil and grease, the limits are quite reasonable and appropriate. Most medium to large manufacturers have at least one of these machines. If the volatility limits are meant to apply to operations where the primary function is the removal of hardened surface coatings, the standard will be impossible to meet. The aggressive solvents needed to remove these coatings routinely have vapor pressures of over 100 mm of mercury. The limit contained in the proposed regulations goes to 1 mm of mercury in two years.

The cold cleaning regulations also specifically prohibit the cleaning of wood products. This would seem to imply that the regulations do not apply to wood cabinet and furniture manufacturing. This should be stated clearly in the preamble. If this limit is meant to apply to our industry, than some cleaning will be moved outside these machines, which will lead to un-captured solvent run off and increased air emissions.

The scope of application needs to be clearly spelled out in terms of which processes are covered and which are not. This is entirely appropriate considering the vast differences in processes using solvents and in solvent characteristics. In addition, there is the potential for many processes to be unnecessarily double regulated. In the section entitled "Background of the Proposed Amendments", it is stated that the proposed rules adopt federal MACT standards for solvent cleaning operations. Solvent cleaning is separately addressed in many industry specific MACT standards. All process currently covered by existing MACT standards should be exempt from these additional and unnecessary rules.

Sections 129.63 (a) (3) (iv) and 129.63 (e) regarding the storage of solvent containing cleaning rags are quite appropriate for collection of such rags in the work locations. These requirements become problematic, however, when one considers transportation and bulk storage issues. Used rags are routinely baled and then stored and shipped in baled form. There is no practical way of placing baled rags in closed containers. Emissions from rags in this configuration are limited and should be allowed by regulation.

In addition, many rags are sent to land fills in open dumpsters and compactor boxes. I know of no way to insure the rags are in closed containers during this process. More importantly, the prevention of evaporation from rags headed to landfills provides no environmental benefit whatsoever. I would suggest that the requirement for closed container storage be limited to storage practices at the point of generation.

My last comment has to do with the makeup of the technical workgroup that was convened to help draft the regulatory language. The group is described as consisting of major equipment and solvent suppliers, environmental groups, and regulatory agencies. Conspicuously left out of this group is the regulated community. It is not at all certain that equipment and material suppliers will be able to adequately represent the interests of the end users. After all, it's the end users who are responsible for compliance.

I would be happy to clarify any of the above statements and can be reached at (570) 374-2711 ext. 610.

Garner, Kim

From: Mike Ludecker [enveng@woodmode.com]
Sent: Tuesday, November 23, 1999 3:24 PM
To: 'irrc@irrc.state.pa.us'
Subject: Comments Regarding the Proposed Solvent Cleaning Regs.



Degreasing Reg
Comments.doc

Mr. Robert Nyce:

Please accept these belated comments regarding the proposed amendments to the states degreasing regulations Sections 121 and 129.

Thank You,
Michael Ludecker

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Proposed Rulemaking 25 PA Code Chs. 121 and 129

Solvent Cleaning Operations

Comments By:

Michael E. Ludecker, P.E.

Manager of Safety and Environmental Services

Wood Mode, Inc.

Kreamer, PA

November 23, 1999

ORIGINAL: 2058

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The proposed amendment to Sections 121.1 (Definitions) and 129.63 (Degreasing Operations) could have a profound impact on the hundreds of cabinet and furniture manufacturers located across the state of Pennsylvania. It is my understanding that at this point there has been no representation by the industry in the official comment period, ending 10/27/99. This is unfortunate considering that the industry is one of the largest users of cleaning solvents in the state. I believe this is because the regulations appear to be aimed primarily at degreasing operations, which would be of only limited concern to cabinet and furniture manufacturers. We do, however, appreciate the opportunity to comment in an unofficial capacity, now that the comment period is closed.

As the cold cleaning regulations apply to maintenance type parts washers, where the chief function is the removal of oil and grease, the limits are quite reasonable and appropriate. Most medium to large manufacturers have at least one of these machines. If the volatility limits are meant to apply to operations where the primary function is the removal of hardened surface coatings, the standard will be impossible to meet. The aggressive solvents needed to remove these coatings routinely have vapor pressures of over 100 mm of mercury. The limit contained in the proposed regulations goes to 1 mm of mercury in two years.

The cold cleaning regulations also specifically prohibit the cleaning of wood products. This would seem to imply that the regulations do not apply to wood cabinet and furniture manufacturing. This should be stated clearly in the preamble. If this limit is meant to apply to our industry, than some cleaning will be moved outside these machines, which will lead to un-captured solvent run off and increased air emissions.

The scope of application needs to be clearly spelled out in terms of which processes are covered and which are not. This is entirely appropriate considering the vast differences in processes using solvents and in solvent characteristics. In addition, there is the potential for many processes to be unnecessarily double regulated. In the section entitled "Background of the Proposed Amendments", it is stated that the proposed rules adopt federal MACT standards for solvent cleaning operations. Solvent cleaning is separately addressed in many industry specific MACT standards. All processes currently covered by existing MACT standards should be exempt from these additional and unnecessary rules.

Sections 129.63 (a) (3) (iv) and 129.63 (e) regarding the storage of solvent containing cleaning rags are quite appropriate for collection of such rags in the work locations. These

requirements become problematic, however, when one considers transportation and bulk storage issues. Used rags are routinely bailed and then stored and shipped in bailed form. There is no practical way of placing bailed rags in closed containers. Emissions from rags in this configuration are limited and should be allowed by regulation.

In addition, many rags are sent to landfills in open dumpsters and compactor boxes. I know of no way to insure the rags are in closed containers during this process. More importantly, the prevention of evaporation from rags headed to landfills provides no environmental benefit whatsoever. I would suggest that the requirement for closed container storage be limited to storage practices at the point of generation.

My last comment has to do with the makeup of the technical workgroup that was convened to help draft the regulatory language. The group is described as consisting of major equipment and solvent suppliers, environmental groups, and regulatory agencies. Conspicuously left out of this group is the regulated community. It is not at all certain that equipment and material suppliers will be able to adequately represent the interests of the end users. After all, it's the end users who are responsible for compliance.

I would be happy to clarify any of the above statements and can be reached at (570) 374-2711 ext. 610.

Original: 2058

Mizner

cc: Harris, Nanorta, Wilmarth, Sandusky, Legal

Garner, Kim

From: Mike Ludecker [enveng@woodmode.com]
Sent: Wednesday, November 10, 1999 8:38 AM
To: 'irrc@irrc.state.pa.us'
Subject: Questions Regarding the Proposed Modifications to 25 PA Code Section 129



Degreasing Reg
Comments.doc

John Nanorta:

Here are some questions that I think will establish the intended scope of the regs. as they apply to our industry. Please call at (570) 374-2711.

-Mike Ludecker

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1999 NOV 10 AM 8:44

INDEPENDENT REGULATORY
REVIEW COMMISSION

Questions Regarding the Proposed Modifications to 25 PA Code Section 129.63 "Degreasing Operations"

Does the Department intend for Section 129.63 to extend to operations whose primary purpose is the removal of residual coatings or over spray from equipment whose primary purpose is the application of coatings?

Does the Department intend for Section 129.63 to extend to operations whose primary purpose is the repair of coating deemed defective by manufacturers who apply surface coatings?

Does the Department intend for Section 129.63 to extend to operations whose primary purpose is the cleaning or wash off of wood or wood composite articles, where such articles are the facilities intended end product?

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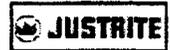


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Page * 210



Oily Waste Cans



Essential for proper disposal of solvent cloths or wiping rags. Round construction and elevated bottom encourage air circulation to disperse heat and prevent spontaneous combustion. Foot operated. (603)

Prod#	Description	1	2	6	QTY
09300	Can, Safety, Oily Waste, 10 Gal	72.55	65.30	56.00	
09500	Can, Safety, Oily Waste, 14 Gal	89.35	80.40	68.90	
09700	Can, Safety, Oily Waste, 21 Gal	138.40	124.55	106.75	

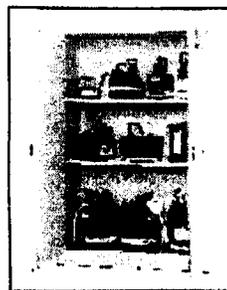


Drain Cans



Provide safe, easy collection of used solvent from parts washing equipment. Built-in flame arrester keeps fire from contents. (604)

Prod#	Description	1	2	6	QTY
10903	Can, Drain w/Funnel, 3 Gal	95.50	85.95	73.70	
10905	Can, Drain w/Funnel, 5 Gal	104.00	93.60	80.20	



Regular Storage Cabinets



Provides central storage and organization for your flammable liquids. They save traveling time, minimize employee exposure and seal off flammables from high temperatures. (605)

incent

HOME

Fine Woodworking



What causes spontaneous combustion of oily rags?

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What conditions most easily lead to spontaneous combustion? I keep rags impregnated with linseed oil and wax in a glass jar with a screw top to exclude most of the air. Still, I've often wondered if the small amount of air is sufficient for an explosion, which could break the jar and eject burning rags into my workshop. What's your advice?

--Frederick Trapp, Pinhalzinho, Brazil

Chris Minick replies: I'm uncertain about the safety of your glass-jar and oily-rag storage system, but my gut feeling says you've just been lucky so far. Wadded-up, oil-soaked rags contain the three ingredients needed for spontaneous combustion: an ignition source, fuel and oxygen.

For an oil to change from a liquid to a solid, it must first absorb oxygen from the atmosphere. This oxygen absorption phase takes several hours, which accounts for the long drying time associated with oil finishes. Once sufficient oxygen has been absorbed, an exothermic (heat-producing) reaction begins. Normally, this heat dissipates harmlessly into the surrounding atmosphere as the oil dries.

When trapped inside a ball of oil-soaked rags, however, the heat produced by this reaction sort of feeds on itself-- often with predictably disastrous results. A basic rule of chemistry is that the higher the temperature of a chemical reaction, the faster it proceeds. The heat trapped inside the rag ball causes the reaction rate to increase, producing more heat, which increases the reaction rate, which produces more heat and so on. Eventually, enough heat is produced to ignite the oily rag ball-- spontaneous combustion.

New Hats!



Avoiding disaster is easy. Don't store oil-soaked rags in your shop. I spread my oil-soaked rags flat on my shop floor or across a lumber pile to dry. Once they are dry, I either toss them in the regular trash or keep them for reuse as oil applicator rags.

--Chris Minick is a finishing chemist and woodworker in Stillwater, Minn. He is a contributing editor to Fine Woodworking magazine. From FWW #124, "Q&A".

"Electronic Component" means, for the purposes of 35 Ill. Adm. Code 218.182(f) and 219.182(f), all portions of an electronic assembly, including, but not limited to, circuit board assemblies, printed wire assemblies, printed circuit boards, soldered joints, ground wires, bus bars, and associated electronic component manufacturing equipment such as screens and filters.

(Source: Added at 21 Ill. Reg. 7695, effective June 9, 1997)

Maryland Reg

26.11.19.09 Control of VOC Emissions from Cold and Vapor Degreasing.

A. Definitions. The following terms have the meanings indicated.

B. Terms Defined.

(a) Except as provided in § B(1)(c) of this regulation, "cold degreasing" means the use of degreasing material at ambient temperature or any temperatures below the boiling point of the degreasing material to remove grease from metal.

(b) "Cold degreasing" includes the use of degreasing material that removes grease from metal, but also leaves a residue on the metal for anti-corrosion or other protective purposes.

(c) "Cold degreasing" does not include industrial wiping operations, cleaning of electronic assemblies, stripping or industrial coating removal systems used to remove propellants, paints, or other previously applied coatings other than grease from metal.

(2) "Degreasing material" means any substance used to remove grease from metal.

(3) "Grease" includes wax, oil, grease, and other similar substances.

(4) Halogenated Substance.

(a) Except as provided in Regulation § B(4)(b) of this regulation, "halogenated substance" means a substance containing chlorine, fluorine, or bromine.

(b) "Halogenated substance" does not include a substance that contains only trace quantities of chlorine, fluorine, or bromine that result from the degreasing of metal.

(5) "Vapor degreasing" means the application of heat to vaporize degreasing material in which the resulting vapors are used to remove grease from metal.

(6) "VOC degreasing material" means any degreasing material, including water-based degreasing material, that contains 5 percent or more VOC.

C. Applicability. This regulation applies to a person who uses a VOC degreasing material for use in cold or vapor degreasing, including cold or vapor degreasing at:

(1) Service stations;

(2) Motor vehicle repair shops;

(3) Automobile dealerships;

(4) Machine shops; and

[Federal Register: October 18, 1996 (Volume 61, Number 203)] [Proposed Rules]
[Page 54377-54381]
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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 60

[FRL-5637-5]

Standards of Performance for New Stationary Sources: Starch Production Plants, Cold Cleaning Machine Operations, and Organic Solvent Cleaners

AGENCY: Environmental Protection Agency (EPA).

ACTION: Withdrawal of proposed standards of performance, final action.

SUMMARY: New source performance standards (NSPS) required by section 111 of the Clean Air Act (Act) were proposed on September 8, 1994 (59 FR 46381) for new, modified, and reconstructed starch production plants, and on September 9, 1994 (59 FR 46602) for new, modified, and reconstructed cold cleaning machines. After a thorough review and analysis of the comments received during the public comment period, the Administrator has concluded that the proposed NSPS for these two source categories are not needed. The proposed NSPS are, therefore, being withdrawn.

In the September 9, 1994 notice proposing the NSPS for cold cleaning machines, the EPA proposed to withdraw the NSPS for organic solvent cleaners proposed on June 11, 1980 (45 FR 39765). The NSPS for organic solvent cleaners are also being withdrawn with this document.

DATE: These proposed rules are withdrawn as of October 18, 1996.

ADDRESSES: Docket. Docket No. A-94-18, containing supporting information used in developing the proposed NSPS for starch production plants and a detailed discussion of the comments received during the public comment period; and Docket No. A-94-08, containing the same information pertaining to the proposed cold cleaning machine operations NSPS, are available for public inspection and copying at the following address: U.S. Environmental Protection Agency, Air and Radiation Docket and Information Center (6102), 401 M Street, S.W., Washington, D.C. 20460. The docket is located at the above address in room M-1500, Waterside Mall (ground floor), and may be inspected from 8 a.m. to 4 p.m., Monday through Friday. The materials are available for review in the docket center or copies may be mailed on request from the Air and Radiation Docket and Information Center by calling (202) 260-7548 or 7549. The FAX number for the Center is (202) 260-4000. A reasonable fee may be charged for copying docket materials.

FOR FURTHER INFORMATION CONTACT: For information concerning specific aspects of this action, contact Mr. William Maxwell [(919) 541-5430], Combustion Group [starch production facilities] or Mr. Daniel Brown [(919) 541-5305], Coatings and Consumer Products Group [cold cleaning machines]. Both contacts are at the Emission Standards Division (MD- 13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.

SUPPLEMENTARY INFORMATION:

Starch

The Proposed Standards

The proposed NSPS for starch production plants would have limited emissions of particulate matter from new, modified, and reconstructed facilities that produce dry starch (including modified starches) derived from corn, wheat, potatoes, tapioca, or other vegetable sources, and facilities drying starch extracted from the wastewater at snack food production facilities (e.g., potato chips, french fries). Typically, starch production plants are components of larger facilities that prepare a variety of products. For example, a corn wet milling facility will normally produce a range of products that can include animal feed, corn gluten, corn germ, germ meal, corn oil, starch, and starch derivatives. Starch derivatives can include modified specialty starches, dextrins, dextrose, corn syrup, high fructose corn syrup, ethanol, and a variety of sweeteners. Similar ranges of products may be derived from wheat, potatoes, or tapioca. The starch facilities that would have been affected by the proposed NSPS for starch production plants are new, modified, and reconstructed starch dryers; dextrin roasters; and starch transfer, storage, and loading facilities at which construction, reconstruction, or modification commenced after September 8, 1994. The proposed NSPS would not have applied to any existing starch production facility, unless such a facility was subsequently modified or reconstructed. At the time of proposal, 17 different companies owned and operated the 47 known existing starch production facilities: 20 produced starch from corn; 3 from wheat; 21 from potatoes; 1 from tapioca; and 2 from other vegetable sources. These existing facilities are concentrated in the midwestern United States, but are found in 19 States across the country.

The proposed NSPS would also not have applied to small dryers; small dextrin roasters; or certain starch transfer, storage, and loading facilities located at snack food processing facilities. Specifically, drum dryers and dryers located at snack food processing facilities having a manufacturer's listed dry starch capacity of 907 kilograms per hour (kg/hr) (2,000 pounds per hour [lb/hr]) or less would have been exempt, because of the low level of emissions from these dryers. Similarly, dextrin roasters and starch transfer, storage, and loading facilities at snack food processing facilities would have been exempt if the dry starch capacity of any of the individual facilities was 454 kg/hr (1,000 lb/hr) or less, because of the low level of emissions from these facilities. A starch dryer is the equipment used to remove uncombined (free) water from starch slurry through direct or indirect heating. There are several types of dryers used at starch production plants, including single-pass (also known as one-pass) flash dryers, ring (also known

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as loop) flash dryers, spray dryers, drum dryers, and belt (also known as conveyor, tunnel, or apron) dryers. A dextrin roaster is a reactor vessel, or a series of vessels, in which starch is reacted, through the addition of heat and/or chemicals, to form the modified starch "dextrin" (or "polydextrin"). Starch transfer, storage, and loading facilities include any facility used to blend, mix, mill, grind, screen, convey, transfer, store, or load for shipment (into any container for shipment, including, but not limited to, bag, truck, and rail car) dry starch.

Specifically, the proposed NSPS would have limited particulate matter emissions from ring flash dryers to 45 mg/dscm (0.02 gr/dscf); from single-pass flash dryers to 25 mg/dscm (0.01 gr/dscf); and from spray dryers, drum dryers, and belt dryers to 10 mg/dscm (0.05 gr/dscf). The proposed NSPS would also have limited visible emissions from dextrin roasters and starch transfer, storage, and loading facilities to zero percent opacity.

Rationale for Withdrawing the Proposed NSPS

The Agency is withdrawing the proposed NSPS for new, modified, or reconstructed starch production plants because it has concluded that promulgation of such standards of performance would achieve little or no emission reduction from starch facilities and, therefore, that promulgation of NSPS is unnecessary, not cost effective, and will not serve the purposes of the Act. After reviewing comments on the September 8, 1994 proposed NSPS, the EPA believes that new, modified, or reconstructed starch facilities that would be subject to the emission standards will employ the best demonstrated technological system of continuous emission reduction (BDT) necessary to meet

such standards and, hence, will, or already do, meet the performance standards without additional regulatory requirements. Although starch production facilities are one of the source categories on the priority list of major source categories for the development of NSPS pursuant to section 111 of the Act (section 60.16), in promulgating the priority list the Agency reserved the right to remove a source category from the priority list if it subsequently determined that promulgating NSPS for a particular source category would have little or no effect on emissions. Indeed, not only is it likely that promulgating NSPS for new or modified starch facilities would achieve little or no emission reduction, but currently available information about the relative size and operating practices of the starch industry suggests the industry does not pose the environmental concern that the Agency originally believed existed over 14 years ago when it listed starch production facilities on the priority list of major source categories. Starch processing and production plants were listed in 1982 as one of 59 source categories on the priority list of major source categories because of the concern about particulate matter, a criteria pollutant, that is emitted from starch processing and production facilities in the form of starch dust. Significantly, starch facilities were initially identified in the late 1970's as a source of particulate matter for inclusion on the priority list of major source categories based on the potential for uncontrolled emissions of starch dust from a facility. It is, however, not the current practice of the starch industry, if indeed it ever was, to allow uncontrolled emissions of starch. As discussed below, starch facilities have an economic incentive to minimize losses of their product, starch, by recapturing emissions of starch dust to the extent possible in order to remain competitive. Accordingly, after issuing today's notice that withdraws the proposed NSPS for starch facilities, the Agency may remove the starch industry from the priority list of major source categories for which NSPS are to be promulgated.

Summary of Public Comments

None of the five commentors to the proposed standards supported the need for the standards. One commentor challenged the need for the NSPS and the remaining commentors addressed the technical aspects of the proposed standards. The comments that address the technical validity of the standards are not discussed in today's notice because they are not relevant to the Agency's decision to withdraw the proposed NSPS. A summary and analysis of these comments has been placed in the docket for the proposed rule.

The commentor that opposes the proposed NSPS argues that the standards are unnecessary, because (1) starch facilities are minor sources of particulate matter, (2) the proposed NSPS would not reduce emissions from new, modified, or reconstructed starch facilities as these facilities will employ BDT that would be required by the regulations to meet the proposed emission standards for particulate matter, (3) the proposed NSPS would impose significant additional administrative and reporting costs with no commensurate environmental benefits. The Agency agrees with the comments for the reasons discussed below.

Analysis of Comments

The EPA's analysis indicates that promulgation of NSPS for starch production plants would achieve little or no emission reduction from starch facilities. Owners and operators of starch facilities have a very significant economic incentive to recover as much of the starch particulate emissions from their facilities as possible. Unlike other facilities where particulate emissions are typically an unwanted byproduct that not only has no economic value but would, in fact, be expensive for a facility to capture and dispose of properly, particulate emissions at starch facilities are made up of starch, which is of course, the very product of economic value that such facilities produce for sale. To the extent, therefore, that a starch facility captures and minimizes the amount of starch particulates released to the environment, it will have that much more starch product for sale and, hence, be that much more profitable. Indeed, a starch facility that allows the starch that it produces to be wasted as particulate emissions to the environment would be less efficient than a competitor that does not waste its product and would become less competitive and, hence, less profitable than its cleaner and more efficient competitor. Pursuant to the proposed NSPS, new, modified, and reconstructed starch dryers; dextrin roasters; and starch transfer, storage, and loading facilities would have had to use wet scrubbers or fabric filters, which is the BDT for starch facilities, in order to

meet the required emission levels. The EPA's investigations, however, show that existing facilities already collect particulate matter from the exhaust ducts or vents of the affected facilities for the reasons discussed above. Specifically, while most existing starch dryers are, at a minimum, equipped with cyclonic collectors, the newer starch dryers are equipped with low energy wet scrubbers or fabric filters, either alone or in combination with one or more cyclones. Waste water from the scrubbers and collected dust from the fabric filters are returned to the process and not sent to disposal. Similarly, dextrin roasters and starch transfer, storage, and loading facilities employ fabric filters to recover starch emissions in dry form for immediate recycle to the process. (See docket A-94-18, entry II-A-8, pp. 4+). The fact that existing newer starch facilities already employ BDT (even

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though they are not required to do so) supports the conclusion that promulgating NSPS for new or modified starch facilities would achieve little or no emission reduction. Not only would this appear to confirm that existing starch facilities must minimize losses of their product to remain economically competitive, but it further suggests that any new or modified starch facilities, which must function at least as efficiently as existing facilities in order to compete with such facilities, must equal, if not exceed, the amount of starch recaptured by existing facilities and, thereby, effectively control emissions of particulate matter at or below the levels of emissions contemplated by the proposed NSPS.

For the reasons discussed above, the Agency anticipates little or no reduction in particulate matter emissions from starch facilities by mandating maximum emission levels. Arguably, any emission reductions achieved by promulgating NSPS would result from improved operation and maintenance of starch facilities as a result of the proposed monitoring requirements for such facilities. However, it is the EPA's judgement that the potential marginal reduction in particulate matter emission levels from starch facilities does not justify the additional administrative costs (primarily related to monitoring and recordkeeping and estimated at approximately \$1.6 million nationwide) that would be required by the standards of performance.

Cold Cleaning Machine Operations and Organic Solvent Cleaners

The Proposed Standards

The NSPS for organic solvent cleaners, which were proposed on June 11, 1980, would have limited emissions of volatile organic compounds (VOC) and trichloroethylene, perchloroethylene, methylene chloride, 1,1,1-trichloroethane, and trichlorotrifluoroethane from new, modified, and reconstructed organic solvent cleaners. On December 2, 1994, national emission standards for hazardous air pollutants (NESHAP) were promulgated for halogenated solvent cleaners (40 CFR Part 63, Subpart T), and on September 9, 1994, the NSPS for cold cleaning machine operations was proposed. The halogenated solvent cleaner NESHAP and the proposed NSPS for cold cleaning machine operations eliminated the need for the duplicative standards proposed in the NSPS for organic solvent cleaners (45 FR 39766). Therefore, the EPA proposed withdrawal of the NSPS for organic solvent cleaners when the NSPS for cold cleaning machines was proposed.

The proposed NSPS for cold cleaning machine operations would have limited emissions of VOC from new, modified, and reconstructed cold cleaning machines. Specifically, the proposed NSPS would have limited VOC emissions from cold cleaning machines with a solvent-air interface greater than or equal to 1.8 square meters (19 square feet) by requiring equipment standards and work practices considered to be BDT.

Rationale for Withdrawing the Proposed NSPS

The decision to withdraw the proposed NSPS is based on the Agency's finding that all cold cleaning machines likely to become subject to the NSPS would employ BDT, even in the absence of the NSPS. The EPA believes that existing regulations are adequate to protect the public health and welfare, and promulgation of the NSPS for cold cleaning machines would impose additional administrative burdens without providing significant emission

reductions. In making this decision, the Administrator has concluded that withdrawal of the proposed NSPS is consistent with the purposes of section 111 of the Act in light of current (and expected future) control patterns for cold cleaning machine operations.

The proposed standards were all pollution prevention techniques that minimize the solvent vapor loss from the machine and encourage reuse of solvent. The proposed equipment standards for cold cleaning machines included covers, drain rack, raised freeboard, visible fill line, solvent pump pressure design limits, and a label stating required work practices. The proposed work practices included not exceeding the tank solvent fill line, flushing performed in the freeboard area with continuous stream, operating the agitator without observable splashing, closing the machine's cover when it is not in use or when the agitator is being used, guarding against air drafts when the machine cover is open, draining cleaned parts, storing waste solvent in closed containers, and cleaning up spills. Finally, the proposed NSPS contained reporting requirements including an initial notification report demonstrating equipment compliance and an annual report demonstrating continued equipment compliance. The Office of Management and Budget (OMB) did not find sufficient justification for the annual reporting requirement; therefore, that provision would have been dropped from the proposed NSPS.

Notwithstanding that there is currently no NSPS for cold cleaning machines, these units are already subject to many, if not all, of the regulatory requirements that would be mandated by the NSPS. Cold cleaning machines, for example, that use halogenated solvents are subject to the NESHAP for halogenated solvent cleaning. Furthermore, cold cleaning machines located in non-attainment areas, regardless of whether they use halogenated or non-halogenated solvents, are subject to reasonably available control technology (RACT) rules established pursuant to section 182 of the Act and the 1977 Control Techniques Guideline (CTG) for the Control of VOC Emissions from Solvent Metal Cleaning. The EPA, therefore, believes that the proposed NSPS requirements would be duplicative of existing requirements for cold cleaning machines that are already subject to the 1994 NESHAP for halogenated solvent cleaning and/or RACT rules based on the 1977 solvent metal cleaning CTG.

The existing regulatory requirements establish four levels of coverage for cold cleaning machines; the relative stringency of the regulatory requirements applicable to each category depends on the type of solvent (halogenated, non-halogenated, or mixture of both) used in the operation, and whether the operation takes place in an area designated as attainment or non-attainment of the national ambient air quality standards for ozone.

The first level of coverage would affect cold cleaning machines that (1) use both halogenated and non-halogenated solvents and (2) are located in a non-attainment area. These units are subject to both the NESHAP and RACT requirements. The existing regulatory requirements applicable to machines in this situation not only meet, but exceed, the regulatory requirements of the proposed NSPS. The combination of the NESHAP and RACT requirements provide for the same five equipment standards and nine work practices that would be required by the proposed NSPS. Furthermore, cold cleaning machines in this situation are also subject to monitoring, recordkeeping, and annual reporting requirements that the proposed NSPS would not require. The second level of coverage would affect cold cleaning machines that (1) use both halogenated and non-halogenated solvents and (2) are operated in an attainment area. These units are subject to the NESHAP requirements only. The NESHAP requires the same work practices as the proposed NSPS and the same

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equipment standards with the exception of the drain rack, the label stating the work practices, and the solvent pump pressure design limits. As discussed in the Response to Comments Section below, the solvent pump pressure design limit as proposed in the NSPS would have been deleted if the NSPS had been promulgated. Furthermore, although a drain rack is not specified as an equipment standard in the NESHAP, draining of cleaned parts is a work practice requirement that inherently requires a drain rack, or something of equal utility, to be present. Accordingly, the EPA believes that the existing regulatory requirements applicable to machines in this situation would provide for the same work practices and equipment standards that would be required in a final NSPS. Again, cold cleaning machines in this situation are also subject to monitoring, recordkeeping, and annual reporting requirements that a

final NSPS would not have required. The third level of coverage would affect cold cleaning machines that (1) use only non-halogenated solvents and (2) are located in a non-attainment area. These units are subject to RACT requirements only. The RACT requirements include several of the work practices proposed in the NSPS and all of the equipment standards with the exception of a visible fill line. The work practice requirements included in the proposed NSPS, but not required by RACT, include not exceeding the solvent fill line, flushing to be performed in the freeboard area with continuous stream, operating the agitator without observable splashing, guarding against air drafts when the machine cover is open, and cleaning up spills. It is difficult to verify continued compliance for these and all other work practices proposed in the NSPS and required by RACT. The work practices, however, are common sense pollution prevention techniques that minimize solvent loss and are beneficial to the operators of cold cleaning machines. Accordingly, the EPA believes the existing regulatory requirements applicable to machines in this situation would provide for the work practices and the equipment standards (with the exception of a visible fill line) included in a final NSPS. A final NSPS would have required an initial notification demonstrating compliance with all equipment standards, including a visible fill line. Although the absence of a final NSPS in this situation could result in cold cleaning machines without a visible fill line, as discussed below, the EPA believes all cold cleaning machines will be constructed with visible fill lines. Finally, the fourth level of coverage would affect cold cleaning machines that are (1) located in an attainment area and (2) operated with only non-halogenated solvents. These units are subject to neither the NESHAP nor the RACT requirements. Although machines in this situation are not necessarily subject to RACT rules or the NESHAP, to the extent that cold cleaning machines are built to a single standard with BDT, the EPA believes that such machines will meet both the RACT and NESHAP equipment standards. Based on information available to the Administrator, the EPA believes that cold cleaning machines are built to a single standard that reflects BDT as specified in the CTG and NESHAP such that a machine design can be constructed for sale and/or distribution throughout the United States regardless of the machines ultimate location in an attainment or non-attainment area. Similarly, cold cleaning machines built to a single standard reflecting BDT allows the machine operators flexibility in choosing the type of cleaning solvent used (halogenated, non-halogenated, or a mixture). Accordingly, the EPA believes that machines in this situation would meet the equipment standards that a final NSPS would require. The EPA also believes that operators of machines in this situation would meet the work practices that would be included in a final NSPS. The EPA expects that the regulated community would follow such work practices as a matter of course to the extent that such practices are pollution prevention techniques which benefit the operator and reflect prudent, if not standard, operating practices already employed in the industry. Under a separate action, the Agency may proceed to revise the priority list of major source categories for which NSPS are required by deleting the "organic solvent cleaners" listing. In finalizing this priority list, the Agency indicated that a subsequent finding that any NSPS would have little or no effect on emissions would be sufficient grounds for removing that source category from the priority list (44 FR 49223).

Summary of Public Comments

Ten comment letters were received during the public comment period following proposal. Two commenters advised the Agency that there was redundancy and duplicative requirements in the proposed NSPS that were already required in the NESHAP and the RACT; the other commenters addressed various technical aspects of the proposed NSPS. After reviewing all the comments, the EPA has concluded that the proposed NSPS is not needed. A summary and analysis of the ten comment letters received appears in the docket; only those comments pertinent to the decision to withdraw the NSPS are discussed here. The comment regarding the duplicative requirements in the proposed NSPS and NESHAP suggested that cold cleaning machines could be subject to both standards which would require unnecessary compliance burden with no additional air quality benefit. The comment regarding duplicative requirements in the proposed NSPS and RACT rules suggested that some State RACT rules are more stringent than the proposed NSPS and specific language should be included in the final NSPS stating that more stringent RACT rules take precedence over the NSPS. Two of the technical comments received were in regard to

solvent pump pressure design limits stating that certain cleaning operations could only be conducted with high pressure solvents and the final NSPS should not prohibit these operations. These comments are discussed in the following paragraphs.

Analysis of Comments

The EPA's analysis indicates that the proposed NSPS would achieve little or no emission reduction. At proposal, the Agency acknowledged that promulgation of the NESHAP for halogenated solvent cleaners eliminated the need for the NSPS for organic solvent cleaners and proposed withdrawal of that NSPS. The EPA now believes that existing regulations for cold cleaning machines in the NESHAP and RACT rules are adequate to protect public health and welfare and the proposed NSPS for cold cleaning machines is also unnecessary. If the EPA moved forward with promulgation of the NSPS, the equipment standard for solvent pump pressure would have been eliminated so as not to prohibit necessary cleaning operations for some sectors of industry. With the absence of this equipment standard, the NESHAP equipment standards are essentially the same as the NSPS equipment standards (see rationale for withdrawing the NSPS).

After reviewing its analysis and the submitted comments, it is the Agency's judgment that compliance with the NSPS in this instance would achieve little or no VOC emission reductions; therefore, the benefits of the proposed standards do not justify the additional administrative costs that would be required by an NSPS.

[[Page 54381]]

Economic and Regulatory Impacts

Today's withdrawal of three proposed rules is not a rulemaking; it does not impose or relieve any regulatory requirements or costs on the regulated community or the national economy.

List of Subjects in 40 CFR Part 60

Environmental protection, Air pollution control, Intergovernmental Relations, Reporting and recordkeeping requirements, Starch production plants, Cold cleaning operations, Organic solvent cleaners.

Dated: October 11, 1996.

Carol M. Browner,
Administrator.

[FR Doc. 96-26816 Filed 10-17-96; 8:45 am] BILLING CODE 6560-50-P

RULE 102 DEFINITION OF TERMS

as it applies to cleaning

CLEAN AIR SOLVENT is a VOC-containing material used to perform solvent cleaning, solvent finishing, or surface preparation operations or activities which:

- (A) Contains no more than fifty (50) grams of VOC per liter of material, as applied;
- (B) Has a VOC composite partial vapor pressure less than 5 mm Hg at 20°C (68°F);
- (C) Reacts to form ozone at a rate not exceeding that of toluene;
- (D) Contains no compounds classified as Hazardous Air Pollutants (HAPs) by the Federal Clean Air Act, or Ozone Depleting Compounds (ODCs) and Global Warming Compounds (GWCs) as defined by the District, and
- (E) Has been certified by the District to meet the criteria stated in (A) through (D) according to test methods and procedures approved by the District.

EXEMPT COMPOUNDS are any of the following compounds:

- (A) Group I
 - 1,1,1,2,3,4,4,5,5,5-decafluoropentane (HFC-43-10mee)
 - 1,3-dichloro-1,1,2,2,3-pentafluoropropane (HCFC 225cb)
 - 3,3-dichloro-1,1,1,2,2-pentafluoropropane (HCFC 225ca)
 - acetone
 - ethane
 - chlorodifluoromethane (HCFC-22)
 - trifluoromethane (HFC-23)
 - 2,2-dichloro-1,1,1-trifluoroethane (HCFC-123)
 - 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
 - pentafluoroethane (HFC-125)
 - 1,1,2,2-tetrafluoroethane (HFC-134)
 - 1,1,1,2-tetrafluoroethane (HFC-134a)
 - 1,1-dichloro-1-fluoroethane (HCFC-141b)
 - 1-chloro-1,1-difluoroethane (HCFC-142b)
 - 1,1,1-trifluoroethane (HFC-143a)
 - 1,1-difluoroethane (HFC-152a)
 - cyclic, branched, or linear, completely fluorinated alkanes
 - cyclic, branched, or linear, completely fluorinated ethers with no unsaturations
 - cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations
 - sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine
 - difluoromethane (HFC-32)
 - 1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxy-butane (C₄F₉OCH₃)
 - 2-(difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane [(CF₃)₂CF₂OCH₂]
 - 1-ethoxy-1,1,2,2,3,3,4,4,4-nonafluorobutane (C₄F₉OC₂H₅)

2-(ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane [(CF₃)₂CF₂OCH₂]
parachlorobenzotrifluoride (PCBTf)

- (B) Group II
 - methylene chloride (dichloromethane)
 - 1,1,1-trichloroethane (methyl chloroform)
 - trichlorofluoromethane (CFC-11)
 - dichlorodifluoromethane (CFC-12)
 - 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113)
 - 1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114)
 - chloropentafluoroethane (CFC-115)
 - cyclic, branched, or linear, completely methylated siloxanes (VMS)
 - tetrachloroethylene (perchloroethylene)
 - ethylfluoride (HFC-161)
 - 1,1,1,3,3,3-hexafluoropropane (HFC-236fa)
 - 1,1,2,2,3-pentafluoropropane (HFC-245ca)
 - 1,1,2,3-pentafluoropropane (HFC-245ea)
 - 1,1,1,2,3-pentafluoropropane (HFC-245eb)
 - 1,1,1,3,3-pentafluoropropane (HFC-245fa)
 - 1,1,1,2,3,3-hexafluoropropane (HFC-236ea)
 - 1,1,1,3,3-pentafluorobutane (HFC-365mfc)
 - chlorofluoromethane (HCFC-31)
 - 1,2-dichloro-1,1,2-trifluoroethane (HCFC-123a)
 - 1-chloro-1-fluoroethane (HCFC-151a)

ORGANIC SOLVENTS include diluents and thinners and are defined as organic materials that are liquids at standard conditions and that are used as solvents, viscosity reducers or cleaning agents, except that such material exhibiting a boiling point higher than 104°C (219°F) at 0.5 mm Hg absolute pressure or having an equivalent vapor pressure shall not be considered to be solvents unless exposed to temperatures exceeding 104°C (219°F).

OZONE-DEPLETING COMPOUNDS (ODCs) are Class I substances identified in 40 CFR, Part 82, Appendix A, Subpart A, including but not limited to the following compounds:

- 1,1,1-trichloroethane (methyl chloroform)
- trichlorofluoromethane (CFC-11)
- dichlorodifluoromethane (CFC-12)
- 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113)
- 1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114)
- chloropentafluoroethane (CFC-115)

VOLATILE ORGANIC COMPOUND (VOC) is any volatile compound of carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and exempt compounds.

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Original: 2058
Mizner
cc: Harris
Nanorta
Wilmarth
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Legal

Fax Cover Sheet

To: John Nanorta re: EQB Regulation on Solvent Cleaning Operation
Fax #: (717) 783-2664
From: Chris Piazzola
Date: November 16, 1999

Number of Pages: Many (Including this cover page)

Here's the info you asked for, including the names, numbers and addresses of participants, the draft rule, and meeting minutes. Mike Hughes, who worked on the project (but who won't be in the office until Friday) said there were around eight meetings, but that was a guess.

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ANNEX A

Title 25. Environmental Protection

Part I. Department of Environmental Protection
Subpart C. Protection of Natural Resources

Article III. Air Resources

Chapter 121. General Provisions

Chapter 121. General Provisions

121.1. Definitions.

The definitions in section 3 of the act (35 P.S. §4003) apply to this article. In addition, the following words and terms, when used in this article, have the following meanings, unless the context clearly indicates otherwise:

NOTE: The following two definitions are included in proposed rulemaking for aerospace manufacturing and rework VOC controls.

AQUEOUS CLEANING SOLVENT—A SOLVENT IN WHICH WATER IS AT LEAST 80 PERCENT BY WEIGHT OF THE SOLVENT.

HAND-WIPE CLEANING OPERATION—REMOVING CONTAMINANTS SUCH AS DIRT, GREASE, OIL, AND COATINGS FROM AN AEROSPACE VEHICLE OR COMPONENT BY PHYSICALLY RUBBING IT WITH A MATERIAL SUCH AS A RAG, PAPER, OR COTTON SWAB THAT HAS BEEN MOISTENED WITH A CLEANING SOLVENT.

§129.63. Degreasing operations.

(a) IMMERSION BATCH Cold cleaning degreasers as defined in §121.1 (relating to definitions) [which have a degreaser opening which is greater than 10 square feet] shall:

(1) Be equipped with [A] a COVER THAT SHALL BE CLOSED AT ALL TIMES EXCEPT DURING PARTS ENTRY AND REMOVAL [cover] to prevent evaporation of solvent during periods of non-use.

(2) HAVE A FREEBOARD RATIO OF 0.75 OR GREATER.

[(ii)](3) HAVE [E]quipment for draining cleaned parts

[(iii)](4) HAVE [A]a permanent, conspicuous label summarizing the operating requirements IN §129.63 (c).

(b) REMOTE RESERVOIR BATCH COLD CLEANING DEGREASERS SHALL BE EQUIPPED WITH A COVER THAT SHALL BE CLOSED AT ALL TIMES EXCEPT DURING CLEANING OF PARTS. FOR REMOTE RESERVOIR DEVICES WHICH DRAIN DIRECTLY INTO THE SOLVENT STORAGE RESERVOIR, THE PERFORATED DRAIN SHALL CONSTITUTE AN ACCEPTABLE COVER.

(c) IMMERSION BATCH COLD CLEANING DEGREASERS AND REMOTE RESERVOIR BATCH COLD CLEANING DEGREASERS SHALL [B]be operated in accordance with the following requirements:

(i) Do not dispose of waste solvent or transfer it to another party, such that greater than 20% for the waste solvent (by weight) can evaporate into the atmosphere; store waste solvent only in covered containers.

(ii) WASTE SOLVENT SHALL BE COLLECTED AND STORED IN CLOSED CONTAINERS. THE CLOSED CONTAINERS MAY CONTAIN A DEVICE THAT ALLOWS PRESSURE RELIEF, BUT DOES NOT ALLOW LIQUID SOLVENT TO DRAIN FROM THE CONTAINER.

(iii) [Close]THE COLD SOLVENT degreaser cover SHALL BE CLOSED EXCEPT DURING PARTS ENTRY AND REMOVAL AND THE REMOTE RESERVOIR BATCH COLD SOLVENT DEGREASER COVER SHALL BE CLOSED EXCEPT WHEN PARTS ARE BEING CLEANED. [whenever not handling parts in the cleaner.]

(iv) Drain cleaned parts for at least 15 seconds or until dripping ceases. PARTS HAVING CAVITIES OR BLIND HOLES SHALL BE TIPPED OR ROTATED WHILE THE PART IS DRAINING.

(v) FLUSHING OF PARTS USING A FLEXIBLE HOSE OR OTHER FLUSHING DEVICE SHALL BE PERFORMED ONLY WITHIN THE FREEBOARD AREA OF THE SOLVENT CLEANING MACHINE. THE SOLVENT SPRAY SHALL BE A SOLID FLUID STREAM, NOT AN ATOMIZED OR SHOWER SPRAY.

(vi) SPONGES, FABRIC, WOOD, AND PAPER PRODUCTS SHALL NOT BE CLEANED IN THE SOLVENT CLEANING MACHINE.

(vii) WHEN AN AIR- OR PUMP-AGITATED SOLVENT BATH IS USED, THE AGITATOR SHALL BE OPERATED TO PRODUCE A ROLLING MOTION OF THE SOLVENT BUT NOT OBSERVABLE SPLASHING OF THE SOLVENT AGAINST THE TANK WALLS OR THE PARTS BEING CLEANED.

(viii) SPILLS DURING SOLVENT TRANSFER SHALL BE WIPED UP IMMEDIATELY AND THE WIPERAGS SHALL BE IMMEDIATELY STORED IN COVERED CONTAINERS FOR DISPOSAL OR RECYCLING.

(ix) WORK AREA FANS SHALL BE LOCATED AND POSITIONED SO THAT THEY DO NOT BLOW ACROSS THE DEGREASER UNIT.

(d) ON AND AFTER JANUARY 1, 2001 A PERSON SHALL NOT USE, SELL, OR OFFER FOR SALE FOR USE IN AN IMMERSION BATCH COLD SOLVENT CLEANING MACHINE OR A REMOTE RESERVOIR BATCH COLD SOLVENT CLEANING MACHINE ANY SOLVENT WITH A VAPOR PRESSURE OF 2.0 MILLIMETERS OF MERCURY (MM HG) OR GREATER, MEASURED AT 20° C (68° F).

(e) ON AND AFTER JANUARY 1, 2001 A PERSON SHALL NOT USE, SELL, OR OFFER FOR SALE FOR USE IN AN IMMERSION BATCH COLD SOLVENT CLEANING MACHINE OR A REMOTE RESERVOIR BATCH COLD SOLVENT CLEANING MACHINE A SOLVENT WITH A VAPOR PRESSURE OF 1.0 MM HG OR GREATER, MEASURED AT 20° C (68° F).

(f) ON AND AFTER JANUARY 1, 1999 A PERSON WHO OWNS OR OPERATES AN IMMERSION BATCH COLD SOLVENT CLEANING MACHINE OR A REMOTE RESERVOIR BATCH COLD SOLVENT CLEANING MACHINE SHALL MAINTAIN FOR TWO YEARS AND MAKE AVAILABLE TO THE DEPARTMENT UPON REQUEST RECORDS OF THE FOLLOWING:

- (i) THE NAME AND ADDRESS OF THE SOLVENT SUPPLIER.
- (ii) THE DATE OF THE SOLVENT PURCHASE.
- (iii) THE TYPE OF SOLVENT INCLUDING.
- (iv) THE VAPOR PRESSURE OF THE SOLVENT MEASURED IN MM HG AT 20° C (68° F).

(b) Open top vapor degreaser as defined in §121.1 (relating to definitions) [which have a degreaser opening which is greater than ten square feet (0.93 square meters)] shall:

(1) Be equipped with:

- (i) AN IDLING AND DOWNTIME MODE cover that COMPLETELY COVERS THE CLEANING MACHINE OPENINGS WHEN IN PLACE, IS FREE OF CRACKS, HOLES AND OTHER DEFECTS, AND can be opened or closed easily without disturbing the vapor zone.
- (ii) A safety switch which shuts off the sump heat if condenser coolant is either not circulating or too warm — condenser flow switch and thermostat.
- (iii) A safety switch which shuts off the spray pump if the vapor level drops more than four inches.
- (iv) A PRIMARY CONDENSER.
- (v) A DEVICE THAT SHUTS OFF THE SUMP HEAT IF THE SUMP LIQUID SOLVENT LEVEL DROPS TO THE SUMP HEATER COILS.

(vi) A VAPOR LEVEL CONTROL DEVICE THAT SHUTS OFF THE SUMP HEAT IF THE VAPOR IN THE VAPOR CLEANING MACHINE RISES ABOVE THE HEIGHT OF THE PRIMARY CONDENSER.

[(iv)](vii) A permanent, conspicuous label summarizing the operating requirements found in subparagraph (3).

(2) Be equipped with one of the following control devices:

(i) Freeboard ratio greater than or equal to .75 and, if the degreaser opening is greater than 10 square feet, the cover must be powered.

(ii) Refrigerated chiller.

(iii) Enclosed design in which the cover or door opens only when the dry part is actually entering or exiting the degreaser.

(iv) Carbon adsorption system, with ventilation greater than 50 cfm/ft² of air vapor area when cover is open, and exhausting less than 25 parts per million of solvent averaged over one complete adsorption cycle.

(3) Be operated in accordance with the following requirements:

(i) THE [Keep] cover SHALL BE closed at all times except when [processing] work loads ARE BEING PROCESSED through the degreaser.

(ii) [Minimize] [s]Solvent carry-out SHALL BE MINIMIZED by: racking all parts to allow full drainage; moving parts in and out of the degreaser at less than 11 feet per minute; degreasing the workload in the vapor zone at least 30 seconds or until condensation ceases; tipping out any pools of solvent on the cleaned parts before removal; and allowing parts to dry within the degreaser for at least 15 seconds or until visually dry. PARTS MUST BE HANDLED IN AN AUTOMATIC PARTS HANDLING SYSTEM FROM THE INITIAL LOADING OF THE PARTS THROUGH THE REMOVAL OF THE CLEANED PARTS.

(iii) [Do not degrease porous or absorbent materials, such as cloth, leather, wood or rope.] SPONGES, FABRIC, WOOD, AND PAPER PRODUCTS SHALL NOT BE CLEANED IN THE SOLVENT CLEANING MACHINE.

(iv) Work loads should not occupy more than half of the [open top area] SOLVENT AIR INTERFACE AREA of THE degreaser UNLESS THE PARTS BASKET OR PARTS ARE INTRODUCED AT A SPEED OF 3 FEET PER MINUTE OR LESS.

(v) [Reserved].

(vi) [Never spray above the vapor level.] SPRAYING OPERATIONS SHALL BE DONE IN THE VAPOR ZONE OR WITHIN A SECTION OF THE MACHINE THAT IS NOT EXPOSED TO THE AMBIENT AIR.

(vii) [Repair s]Solvent leaks SHALL BE REPAIRED immediately or [shutdown]the degreaser SHALL BE SHUT DOWN.

(viii) Do not dispose of waste solvent or transfer it to another party such that greater than 20% of the waste by weight will evaporate into the atmosphere; store waste solvent only in closed containers. WASTE SOLVENT SHALL BE COLLECTED AND STORED IN CLOSED CONTAINERS. THE CLOSED CONTAINERS MAY CONTAIN A DEVICE THAT ALLOWS PRESSURE RELIEF, BUT DOES NOT ALLOW LIQUID SOLVENT TO DRAIN FROM THE CONTAINER.

(ix) Exhaust ventilation should not exceed 65 cfm/ft^2 of degreaser open area, unless necessary to meet OSHA requirements; ventilation fans should not be used near the degreaser opening.

(x) Water should not be visually detectable in solvent exiting the water separator.

(xi) **THE AIR FLOW ACROSS THE TOP OF THE FREEBOARD AREA OF THE SOLVENT CLEANING MACHINE SHALL NOT EXCEED 50 FEET PER MINUTE.**

(c) Conveyorized degreasers as defined in §121.1 [which have a degreaser opening which is greater than 10 square feet (0.93 square meters)] shall:

(1) Be equipped with:

(i) Filter a drying tunnel or another means such as a rotating (tumbling) basket, sufficient to prevent cleaned parts from carrying out solvent liquid or vapor.

(ii) A safety switch which shuts off the sump heat if condenser coolant is either not circulating or too warm (condenser flow switch and thermostat).

(iii) A safety switch which shuts off the spray pump if the vapor level drops more than 4 inches.

(iv) A safety switch which shuts off the sump heat when vapor level rises too high—vapor level control thermostat.

(v) Entrances and exits which silhouette the work load so that the average clearance between parts of the edge of degreaser is either less than 4 inches or less than 10% of the width of the opening.

(vi) Covers **THAT SHALL BE IN PLACE** for closing off the entrances and exits during **THE DOWNTIME MODE UNLESS THE SOLVENT HAS BEEN REMOVED FROM THE MACHINE OR MAINTENANCE OR MONITORING IS BEING PERFORMED WHICH REQUIRES THE COVERS TO NOT BE IN PLACE.** [shutdown hours.]

(2) Be equipped with one of the following control devices:

(i) Refrigerated chiller.

(ii) Carbon adsorption system, with ventilation greater than 50 cfm/ft^2 of air/vapor area when down-time covers are open and exhausting less than 25 parts per million of solvent by volume averaged over a completed adsorption cycle.

(3) Be operated in accordance with the following requirements:

(i) Exhaust ventilation may not exceed 65 cfm/ft^2 ($20 \text{ m}^3/\text{min}/\text{m}^2$) of degreaser opening unless necessary to meet OSHA requirements; work place fans may not be used near the degreaser opening.

(ii) [Minimize e] Carry-[]out emissions **SHALL BE MINIMIZED** by racking parts for best drainage and by maintaining vertical conveyor speed at less than 11 feet per minute.

(iii) Do not dispose of waste solvent or transfer it to another party such that greater than 20% of the waste by weight can evaporate into the atmosphere; store waste solvent only in covered containers.

(iv) **WASTE SOLVENT SHALL BE COLLECTED AND STORED IN CLOSED CONTAINERS. THE CLOSED CONTAINERS MAY CONTAIN A DEVICE THAT ALLOWS PRESSURE RELIEF, BUT DOES NOT ALLOW LIQUID SOLVENT TO DRAIN FROM THE CONTAINER.**

(iv) Solvent leaks SHALL BE REPAIRED immediately or [shutdown]the degreaser SHALL BE SHUT DOWN.

(v) Water should not be visibly detectable in the solvent exiting the water separator.

(vi) Down-time covers shall be placed over entrances and exits of conveyorized degreasers immediately after the conveyor and exhaust are shutdown and removed just before they are started up UNLESS THE SOLVENT HAS BEEN REMOVED FROM THE MACHINE OR MAINTENANCE OR MONITORING IS BEING PERFORMED WHICH REQUIRES THE COVERS TO NOT BE IN PLACE.

(vii) SPRAYING OPERATIONS SHALL BE DONE IN THE VAPOR ZONE OR WITHIN A SECTION OF THE MACHINE THAT IS NOT EXPOSED TO THE AMBIENT AIR.

(viii) THE AIR FLOW ACROSS THE TOP OF THE FREEBOARD AREA OF THE SOLVENT CLEANING MACHINE DOES NOT EXCEED 50 FEET PER MINUTE.

(d) HAND WIPING CLEANING OPERATIONS

(1) EXCEPT AS PROVIDED IN §§ 129.73(6) (RELATING TO AEROSPACE MANUFACTURING AND REWORK), BEGINNING (DATE OF PUBLICATION OF THE FINAL RULEMAKING IN THE *PENNSYLVANIA BULLETIN*) A PERSON SHALL NOT USE SOLVENTS FOR HAND-WIPE CLEANING UNLESS THE CLEANING SOLVENTS:

(i) MEET THE DEFINITION OF AQUEOUS CLEANING SOLVENT IN SECTION 121.1, OR

(ii) HAVE A VOC COMPOSITE VAPOR PRESSURE LESS THAN OR EQUAL TO 45 MILLIMETERS OF MERCURY (MM HG) AT 20°C.

(2) USABLE CLOTHS, RAGS, PAPER TOWELS, AND OTHER FABRICS USED FOR HAND-WIPE CLEANING OPERATIONS SHALL BE PLACED IN PLASTIC BAGS AND SEALED WHEN NOT IN USE. UNUSABLE CLOTHS, RAGS, PAPER TOWELS, AND OTHER FABRICS SHALL BE PLACED IN CLOSED CONTAINERS FOR DISPOSAL OR RECYCLING.

DRAFT SCHEDULE AND MILESTONES - DEGREASING REGULATION

	MEETING DATE	MEETING OBJECTIVE
Meeting #1 (Aug)	August 12, 1997	Introductions Process Data Needs Stakeholder Needs
Meeting #2 (Aug)		Data Presentations
Meeting #3 (Sept)		Stakeholder Guidance - First Draft
Meeting #4 (Sept)		Review First Draft Identify Unresolved Issues
Meeting #5 (Oct)		Problem-Solving - Unresolved Issues
Meeting #6 (Oct)		Problem-Solving - Unresolved Issues
Meeting #7 (Nov)		Review Draft
Meeting #8 (Nov)		Finalize and Ratify Final Recommendations

Annotated Draft Agenda

DEGREASING STAKEHOLDERS

August 12, 1997

Meeting Objectives:

Clarify Purpose, Process and Operating Agreements
Exchange Information
Provide Preliminary Guidance For Draft Regulation
Set Meeting Dates and Milestones

9:00 am - 4:30 pm

- 9:00 PRELIMINARY MATTERS
- Introductions
Agenda Preview
- 9:30 CONTEXT-PURPOSE-PROCESS-PROTOCOLS
- 1996 Stakeholders
Draft Operating Agreements
- 10:55 COLLECT CALENDARS
- 11:00 OPENING DISCUSSION
- Quick presentation from each stakeholder about their company/agency/organization
 - Who's not here that ought to be?
- 12:00 LUNCH
- 12:45 INITIAL DATA
- Regulatory Process
 - Relevant Regulations, including other states
 - Current Technology
- 2:00 DISCUSSION AND ASSIGNMENTS - ADDITIONAL DATA NEEDS
- 2:30 DISCUSSION - STAKEHOLDERS INTERESTS/CONCERNS/NEEDS - AS GUIDANCE TO DEP IN PREPARING A DRAFT REGULATION
- 3:15 SCHEDULE AND MILESTONE - SETTING MEETING DATES AND MEETING OBJECTIVES

4:00

**AGENDA FOR SECOND MEETING
MEETING EVALUATION**

**DRAFT AGENDA
PENNSYLVANIA OZONE STAKEHOLDERS**

DEGREASING REGULATION

MARCH 30-31, 1998

MEETING OBJECTIVES:

**Review Draft Regulation
Build Consensus
Finalize Draft and Reach Closure**

Monday, March 30 1:00 -4:00 pm

Revisit Comments Last Meeting

Review New Draft

Produce Revised Draft Monday Night

Tuesday, March 31 9:00 - 4:00 pm

Review Changes

Finalize Draft Regulation

Next Steps...Farewells...

**DRAFT AGENDA
PENNSYLVANIA OZONE STAKEHOLDERS**

DEGREASING REGULATION

MAY 11-12, 1998

MEETING OBJECTIVES:

**Review Draft Regulation
Build Consensus
Finalize Draft and Reach Closure**

Monday, May 11 1:00 -4:00 pm

**Revisit Comments Last Meeting
Review New Draft**

Produce Revised Draft Monday Night?

Tuesday, May 12 9:00 - 4:00 pm

**Review Changes
Finalize Draft Regulation
Next Steps...Farewells...**

Annotated Draft Agenda

DEGREASING STAKEHOLDERS
November 3, 1997

DEP, Rachel Carson Office Building, 400 Market Street, Harrisburg, Room 105

Meeting Objectives:

Discuss Emission Inventory
Review Draft Regulation
Reach Consensus on Outstanding Issues in Draft

9:00 am - 4:30 pm

- 9:00 **PRELIMINARY MATTERS**
- Agenda Preview
 Review Meeting Summary
- 9:30 **EMISSIONS INVENTORY**
- Discussion
 Next Steps
- 10:00 **DRAFT REGULATION**
- Presentation - DEP
 Discussion-Areas of Concern
- 12:00 **LUNCH BREAK**
- 1:00 **DRAFT REGULATION**
- Problem Solving - Areas of Concern
 Consensus Building
- 4:00 **AGENDA - November 10**
 OTHER BUSINESS
 MEETING EVALUATION

Annotated Draft Agenda

DEGREASING STAKEHOLDERS
September 30 - October 1, 1997

September 30

DEP, Rachel Carson Office Building, 400 Market Street, Harrisburg, Room 105

Meeting Objectives:

Exchange Information
Examine Emission Inventory
Review Regulations from Other Jurisdictions
Discuss Non-Regulatory Approaches
Provide Guidance For Draft Regulation

9:00 am - 4:30 pm

9:00 PRELIMINARY MATTERS

Introductions
Agenda Preview
Review Meeting Summary

9:30 EMISSIONS INVENTORY

Presentation
Discussion

12:00 LUNCH BREAK

1:00 INDUSTRY PRESENTATIONS

**3:00 DISCUSSION - CONCLUSIONS FROM THE PRESENTATIONS AND
ISSUES/CONCERNS RELATED TO THE REGULATION**

4:00 AGENDA - DAY II
OTHER BUSINESS
MEETING EVALUATION

Annotated Draft Agenda

**DEGREASING STAKEHOLDERS
September 30 - October 1, 1997**

October 1

Forum Building (adjacent to the capitol), Harrisburg, Room G5

Meeting Objectives:

Exchange Information
Examine Emission Inventory
Review Regulations from Other Jurisdictions
Discuss Non-Regulatory Approaches
Provide Guidance For Draft Regulation

9:00 am - 4:30 pm

9:00 **PRELIMINARY MATTERS**

Agenda Preview
Other

9:30 **REGULATIONS FROM OTHER STATES**

Discussion - Advantages and Disadvantages

PENNSYLVANIA'S REGULATION

Presentation and Discussion

12:00 **LUNCH BREAK**

1:00 **NON-REGULATORY APPROACHES TO OZONE REDUCTION**

Brainstorming and Discussion

2:00 **DISCUSSION - CONCLUSIONS FROM THESE TWO DAYS AND
GUIDANCE TO DEP IN PREPARING FIRST DRAFT**

4:00

**AGENDA - OCTOBER 13-14
OTHER BUSINESS
MEETING EVALUATION**

Annotated Draft Agenda**DEGREASING STAKEHOLDERS
August 12, 1997****Meeting Objectives:**

Clarify Purpose, Process and Operating Agreements
Exchange Information
Provide Preliminary Guidance For Draft Regulation
Set Meeting Dates and Milestones

9:00 am - 4:30 pm

- 9:00 PRELIMINARY MATTERS**
- Introductions
Agenda Preview
- 9:30 CONTEXT-PURPOSE-PROCESS-PROTOCOLS**
- 1996 Stakeholders
Draft Operating Agreements
- 10:55 COLLECT CALENDARS**
- 11:00 OPENING DISCUSSION**
- Quick presentation from each stakeholder about their company/agency/organization
 - Who's not here that ought to be?
- 12:00 LUNCH**
- 12:45 INITIAL DATA**
- Regulatory Process
 - Relevant Regulations, including other states
 - Current Technology
- 2:00 DISCUSSION AND ASSIGNMENTS - ADDITIONAL DATA NEEDS**
- 2:30 DISCUSSION - STAKEHOLDERS INTERESTS/CONCERNS/NEEDS - AS GUIDANCE TO DEP IN PREPARING A DRAFT REGULATION**
- 3:15 SCHEDULE AND MILESTONE - SETTING MEETING DATES AND MEETING OBJECTIVES**

4:00

**AGENDA FOR SECOND MEETING
MEETING EVALUATION**

DRAFT SCHEDULE AND MILESTONES - DEGREASING REGULATION

	MEETING DATE	MEETING OBJECTIVE
Meeting #1 (Aug)	August 12, 1997	Introductions Process Data Needs Stakeholder Needs
Meeting #2 (Aug)		Data Presentations
Meeting #3 (Sept)		Stakeholder Guidance - First Draft
Meeting #4 (Sept)		Review First Draft Identify Unresolved Issues
Meeting #5 (Oct)		Problem-Solving - Unresolved Issues
Meeting #6 (Oct)		Problem-Solving - Unresolved Issues
Meeting #7 (Nov)		Review Draft
Meeting #8 (Nov)		Finalize and Ratify Final Recommendations

Annotated Draft Agenda

DEGREASING STAKEHOLDERS

February 13, 1998

DEP, Rachel Carson Office Building, 400 Market Street, Harrisburg, Room 105

Meeting Objectives:

**Reestablish Stakeholder Group
Review Draft Regulation
Reach Consensus on Outstanding Issues in Draft
Agree on Next Steps**

9:00 am - 4:30 pm

- 9:00 PRELIMINARY MATTERS**
- Introductions
 Agenda Preview
- 9:30 WHERE WE LEFT OFF IN '97**
- Review Stakeholder Input from Last Meeting
 Status of Emission Inventory Discussions
 Other
- 10:00 DRAFT REGULATION**
- Presentation - DEP
 Discussion-Areas of Concern
- 12:00 LUNCH BREAK**
- 1:00 DRAFT REGULATION**
- Problem Solving - Areas of Concern
 Consensus Building
- 4:00 NEXT STEPS
 MEETING EVALUATION**

Annotated Draft Agenda**DEGREASING STAKEHOLDERS
September 22, 1997****Meeting Objectives:**

**Clarify Purpose, Process and Operating Agreements
Exchange Information
Provide Preliminary Guidance For Draft Regulation
Set Meeting Dates and Milestones**

9:00 am - 4:30 pm

- 9:00 PRELIMINARY MATTERS**
- Introductions
Agenda Preview
Quick Reminder Operating Agreements**
- 9:30 PRESENTATIONS**
- Steve Nourie
David Wagner
Jim Kemp
Joe McChesney**
- 10:55**
- 11:00 OPENING DISCUSSION**
- **Quick presentation from each stakeholder about their company/agency/organization**
 - **Who's not here that ought to be?**
- 12:00 LUNCH**
- 12:45 INITIAL DATA**
- **Regulatory Process**
 - **Relevant Regulations, including other states**
 - **Current Technology**
- 2:00 DISCUSSION AND ASSIGNMENTS - ADDITIONAL DATA NEEDS**
- 2:30 DISCUSSION - STAKEHOLDERS INTERESTS/CONCERNS/NEEDS - AS GUIDANCE TO DEP IN PREPARING A DRAFT REGULATION**

**3:15 SCHEDULE AND MILESTONE - SETTING MEETING DATES AND
MEETING OBJECTIVES**

**4:00 AGENDA FOR SECOND MEETING
MEETING EVALUATION**

DRAFT SCHEDULE AND MILESTONES - DEGREASING REGULATION

	MEETING DATE	MEETING OBJECTIVE
Meeting #1 (Aug)	August 12, 1997	Introductions Process Data Needs Stakeholder Needs
Meeting #2 (Aug)		Data Presentations
Meeting #3 (Sept)		Stakeholder Guidance - First Draft
Meeting #4 (Sept)		Review First Draft Identify Unresolved Issues
Meeting #5 (Oct)		Problem-Solving - Unresolved Issues
Meeting #6 (Oct)		Problem-Solving - Unresolved Issues
Meeting #7 (Nov)		Review Draft
Meeting #8 (Nov)		Finalize and Ratify Final Recommendations

Gelnett, Wanda B.

From: Doug Biden [dbiden@paea.org]
Sent: Tuesday, November 02, 1999 10:23 AM
To: 'IRRC@irrc.state.pa.us'
Cc: Jim Cunningham
Subject: solvent cleaning regs

Original: 2058
Mizner

cc: Harris
Nanorta
Wilmarth
Sandusky
Legal


PEAsolventregs.doc


degreasePEA1page.do
c

RECEIVED
1999 NOV -2 PM12:05
INDEPENDENT REGULATORY
REVIEW COMMISSION

IRRC: Attached are the comments of the Pennsylvania Electric Association on DEP's proposed changes to the "Solvent Cleaning Operations" regulations (amendments to chapters 121 and 129 of Pa. Code Title 25, Environmental Protection). Also attached is a one-page summary. Thank you for considering our comments. Doug Biden (717)257-5852

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1999 NOV -2 PM 12: 05
INDEPENDENT REGULATORY
REVIEW COMMISSION

EPGA Letter Head

DRAFT

October 27, 1999

Pennsylvania Environmental Quality Board
15th Floor, Rachel Carson State Office Building
P.O. Box 8477
Harrisburg, PA 17105-8477

RE: Notice of Proposed Rulemaking—Solvent Cleaning Operations

Dear Board Members:

The Electric Power Generation Association (EPGA) respectfully submits comments on the August 28, 1999, proposed rulemaking regarding solvent cleaning operations as it relates to amendments to Chapters 121 and 129 of *Pennsylvania Code Title 25, Environmental Protection*. EPGA is a regional trade association comprised of six electric generating companies that provide electric power to the mid-Atlantic region. These comments are submitted on behalf of all of our member companies:

Allegheny Energy Supply
Duquesne Light Company
FirstEnergy Corporation
GPU Generation, Inc.
PECO Energy Company
PP&L, Inc.

Together these companies generate approximately 90 percent of Pennsylvania's electric power needs. EPGA applauds the efforts of the Pennsylvania DEP and Southeast and Southwest Pennsylvania Ozone Stakeholders Working Groups in developing these amendments. However, we believe that some changes to the proposed rulemaking are necessary.

Edits to the proposed rulemaking are presented as follows:

ADDITIONS IN UPPER CASE

~~Strikethrough for deletion~~

Italic for clarification.

Chapter 121. Provisions.

121.1 Definitions

CONSUMER PRODUCT—ANY HOUSEHOLD OR INSTITUTIONAL PRODUCT (INCLUDING PAINTS, COATINGS, AND SOLVENTS), OR SUBSTANCE, OR ARTICLE (INCLUDING ANY CONTAINER OR PACKAGING) HELD BY ANY PERSON, THE USE, CONSUMPTION, STORAGE, DISPOSAL, DESTRUCTION, OR DECOMPOSITION OF WHICH MAY RESULT IN THE RELEASE OF VOC.

This definition has been added for clarification in regards to hand-wipe cleaning operations.

Freeboard Ratio—For a cold cleaning machine, the distance from the liquid solvent to the top edge of the cold cleaning machine divided by the ~~width~~ SMALLER INTERIOR DIMENSION (LENGTH, WIDTH, OR DIAMETER) of the cold cleaning machine; for an operating batch vapor cleaning machine or an in-line vapor cleaning machine, the distance from the top of the solvent vapor to the top edge of the vapor cleaning machine divided by the ~~width~~ SMALLER INTERIOR DIMENSION (LENGTH, WIDTH, OR DIAMETER) of the vapor cleaning machine. AS IT RELATES TO THIS DEFINITION, DISTANCE, LENGTH, WIDTH, AND DIAMETER IS MEASURED DURING THE IDLING MODE.

This definition has been changed to be consistent with 40 CFR Part 63, Subpart T—National Emission Standards for Halogenated Solvent Cleaning.

IDLING MODE—THE TIME PERIOD WHEN A CLEANING MACHINE IS NOT ACTIVELY CLEANING PARTS AND SUMP HEATING COILS, IF PRESENT, ARE TURNED ON.

This definition has been added to clarify the configuration for determining freeboard ratio and is consistent with 40 CFR Part 63, Subpart T—National Emission Standards for Halogenated Solvent Cleaning.

VAPOR PRESSURE—THE PRESSURE EXERTED BY THE VAPOR PHASE OF A COMPOUND IN EQUILIBRIUM WITH THE LIQUID PHASE OF THE COMPOUND AT A SPECIFIC TEMPERATURE. FOR MIXTURES IT IS THE VAPOR PRESSURE OF THE BLEND.

Vapor pressure is not presently defined in Pennsylvania Code Title 25. Article III, Air Resources.

Chapter 129. Standards for Sources

Sources of VOCs

§129.63. Degreasing operations.

(a) This section applies to all cold cleaning machines **EXCLUDING MACHINES THAT HAVE AN OPENING NO GREATER THAN 10 SQUARE FEET, HAVE A FREEBOARD RATIO OF 0.75 OR GREATER, AND UTILIZE A SOLVENT WITH A VAPOR PRESSURE LESS THAN 1.0 MM HG, MEASURED AT 20⁰ C (68⁰ F).**

The proposed rulemaking eliminated the de minimis exemption for rather small machines. EPGA requests that the EQB retain a de minimis classification but with the limited vapor pressure and freeboard ratio. EPGA believes that these small machines operating with low vapor pressure solvent at a freeboard ratio of 0.75 will result in limited emission of VOCs without any additional requirements. Furthermore, the 1.0 mm Hg vapor pressure is more stringent than the 5 mm Hg threshold for exemption for solvents recommended by the Southeast Ozone Stakeholders Group.

(b) This section applies to batch vapor cleaning machines **EXCLUDING MACHINES THAT HAVE AN OPENING NO GREATER THAN 10 SQUARE FEET, HAVE SIDES WHICH RESULT IN A FREEBOARD RATIO OF 0.75 OR GREATER, AND UTILIZE A SOLVENT WITH A VAPOR PRESSURE LESS THAN 1.0 MM HG, MEASURED AT 20⁰ C (68⁰ F).**

The proposed rulemaking eliminated the de minimis exemption for rather small machines. EPGA requests that the EQB retain a de minimis classification but

with the limited vapor pressure and freeboard ratio. EPGA believes that these small machines operating with low vapor pressure solvent at a freeboard ratio of 0.75 will result in limited emission of VOCs without any additional requirements. Furthermore, the 1.0 mm Hg vapor pressure is more stringent than the 5 mm Hg threshold for exemption for solvents recommended by the Southeast Ozone Stakeholders Group.

(e) The following applies to hand-wipe cleaning operations using cleaning solvents containing greater than 5% VOC or HAP by weight BUT EXCLUDES ALL CLEANING SOLVENTS WHICH ARE CONSUMER PRODUCTS. Cloths, rags, paper towels, and other fabrics used for hand-wipe cleaning shall be placed in closed containers for disposal and recycling. THE USER SHALL DETERMINE THE APPROPRIATE CONTAINERS TO BE USED, WHICH ARE SIZED FOR THE AMOUNT OF HAND-WIPE ARTICLES GENERATED, AND THAT ARE MANUFACTURED OF MATERIALS COMPATIBLE WITH THE CLEANING SOLVENTS UTILIZED.

EPGA believes that it is not the intent of the EQB to control VOC emissions from consumer products beyond that which is already regulated by 40 CFR Part 59—National Volatile Organic Compound Emission Standards for consumer and Commercial Products.

EPGA appreciates the opportunity to provide these comments to the EQB on this proposed rulemaking. Thank you for your consideration of them.

Sincerely,

Douglas L. Biden
Secretary-Treasurer

RECEIVED

1999 NOV -2 PM 12: 05

717-257-5850

INDEPENDENT REGULATORY
REVIEW COMMISSION

Comments of the Pennsylvania Electric Association

Re: Notice of Proposed Rulemaking – Solvent Cleaning Operations

One-page Summary for the Environmental Quality Board

October 27, 1999

- ◆ A definition of “consumer product” should be added for clarification regarding hand-wipe cleaning operations.
- ◆ The definition of “freeboard ratio” should be amended to be consistent with 40 CFR Part 63, Subpart T – National Emission Standards for Halogenated Solvent Cleaning.
- ◆ A definition of “idling mode” should be added to clarify the configuration for determining freeboard ratio and to be consistent with 40 CFR Part 63, Subpart T.
- ◆ A definition of “vapor pressure” should be added because it is not presently defined in Pennsylvania Code Title 25, Article III, Air Resources.
- ◆ A de minimus exemption for small machines using low vapor pressure solvent should be included in the regulations for cold cleaning machines and batch vapor cleaning machines.
- ◆ For hand-wipe cleaning operations, the regulations should clarify that they are not intended to apply to VOC emissions from consumer products which are already regulated by 40 CFR Part 59 – National Volatile Organic Compound Emission Standards for Consumer and Commercial Products.

Original: 2058
Mizner
cc:

Harris
Nanorta
Wilmarth
Sandusky



Superior Tube Company

A member of Superior Group, Inc.

^{Legal}
Transmitted Electronically to: regcomments@dep.state.pa.us

James M. Seif, Chairman
Environmental Quality Board
15th Floor, Rachel Carson State Office Building
P.O. Box 8477
Harrisburg, PA 17105-8477

**Re: Comments on Solvent-Cleaning Operations;
Regulatory Proposal 7-346**

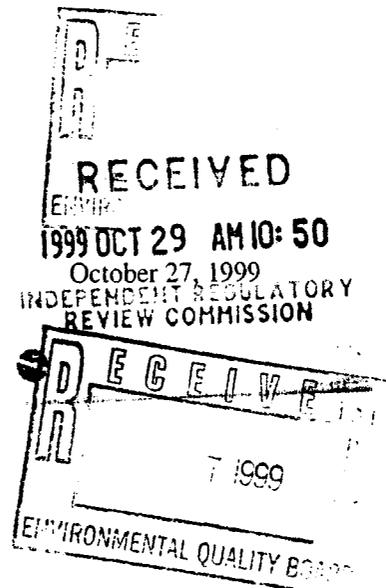
Dear Chairman Seif:

Superior Tube Company, a member of the Superior Group, operates a tubing manufacturing facility in Collegetown, Montgomery County, Pennsylvania. We have reviewed the preamble and proposed rulemaking published in the August 28, 1999 Pennsylvania Bulletin. We have also reviewed the Regulatory Analysis Form ("Regulatory Analysis") prepared by the Department and submit these comments on Regulatory Proposal 7-346, Solvent Cleaning Operations.

The Department has regulated cold-cleaning degreasers since 1979. Cold cleaning degreasers are defined under existing regulations as "a batch-loading device using nonboiling organic solvent to clean or degrease metal parts." 25 Pa. Code § 121.1 (definition of cold cleaning degreaser). In the Pennsylvania Bulletin dated August 28, 1999, the Department noticed its intent to add a definition of "cold cleaning machine" (without deleting the definition of "cold cleaning degreaser"), delete the existing equipment standards for cold cleaning degreasers and substitute new equipment standards for cold cleaning machines, as well as phasing in restrictions on the volatility of solvents used in cold cleaning machines. Unfortunately, the Department does not explain in the Preamble or the Regulatory Analysis why the existing regulations must be revised.

The proposed definition of "cold cleaning machine" as limited to "unheated" liquid is not practical or reasonable. Under the proposed definition of cold cleaning machine, Superior Tube's cold cleaning degreasers would not be cold cleaning machines because Superior Tube uses nonboiling solvent. We have determined through years of experience that there are many circumstances where the optimum solvent temperature, both for cleaning efficiency and for efficiency of use, is above ambient but well below boiling point. Unfortunately, the Department provides no explanation for limiting cold cleaning machines to "unheated" liquids.

Superior Tube's cold cleaning degreasers are defined as cold batch cleaning machines subject to EPA's NESHAP for halogenated solvent cleaning. The additional requirements imposed by the proposed rule are administratively burdensome without any additional environmental benefit. In fact, EPA proposed issuing a New Source Performance Standard ("NSPS") for cold cleaning machines and after notice and comment determined that existing RACT and CTG requirements are adequate to protect public health and welfare and that additional regulation of cold cleaning machines was "unnecessary." 61 Fed. Reg. 54377 (Oct. 18, 1996) (withdrawal of proposed standards). The Department fails to explain why RACT and CTG requirements for cold cleaning machines are inadequate to protect human health and welfare.



Superior Tube also questions the intended scope of the change in the definition of cold cleaning degreasers. The proposed definition of cold cleaning machine is "a device or piece of equipment, containing and/or using an unheated liquid which contains greater than 5% solvent or hazardous air pollutant by weight, where parts are placed to remove dirt, grease, oil or other contaminants and coatings, from the surfaces of the parts or to dry the parts." The definition of cold cleaning degreasers was limited to cleaning or degreasing metal parts. The Preamble does not discuss this revision or whether it is the Department intent to expand the regulation's scope to include all parts. If this is the Department's intent, then Superior Tube believes the Department must define the term "parts." Otherwise, the regulated community would be uncertain as to the scope of the rulemaking.

In addition, Superior Tube would like to express its concerns about the specific standards under the proposed vapor degreasing regulation. In some instances, the standard calls out for equipment to control emissions from operations that may not be applicable to all pieces of equipment. As an example, in Section 129.63(b)(1)(iv), the proposed regulation requires that all batch vapor cleaning machines be equipped with "a vapor up control switch which shuts off the spray pump if vapor is not present". It should be made clear that if the vapor degreaser does not have a spray pump, neither the spray pump nor the control switch are necessary to comply with this regulation. Superior Tube recommends that the wording of this section be amended to read:

If the vapor degreaser has a spray pump, it must be equipped with a vapor up control switch which shuts off the spray pump if vapor is not present.

Superior Tube has the following significant concerns regarding this proposed rulemaking, in addition to those set forth above:

1. The Preamble does not explain the rationale for limiting the volatility of solvents used in cold cleaning machines. There is nothing in the regulatory record identifying the consensus position of the Degreasing Stakeholders and the basis for imposing this limitation without notice.
2. According to the Preamble, the purpose of this rulemaking is to reduce the VOCs emitted from solvent cleaning operations. However, if this rulemaking is going to be submitted to EPA as part of the SIP for attainment and maintenance of the ozone standard, then the Department should quantify the expected reductions in VOCs. Superior Tube supports reasonable, cost effective controls on VOC emissions. The failure to identify and quantify specific reductions of volatile organic compounds (VOCs) makes it impossible to determine the cost effectiveness of this proposal.
3. The Department relies heavily on the recommendations of the three stakeholder groups to support this rulemaking. However, we have been unable to obtain from the Department the final consensus document of the Degreasing Stakeholders and can not determine what information was considered by that group and therefore, can not adequately comment on its accuracy or appropriateness.
4. The proposed rulemaking does not explain why the Department is deviating from the existing NESHAP for halogenated-solvent cleaning. Sources covered by the NESHAP and the solvent cleaning rule face duplicative and sometimes inconsistent requirements. The Department does not provide a justification for going beyond federal requirements.
5. The proposed rulemaking does not discuss the implications on the Department's plan approval and permitting process. The Regulatory Analysis contends the proposal will not require licenses or permits. To the contrary, major sources will be subject to RACT, Title V and perhaps the NESHAP. The Department does not explain how it will permit nonmajor and area sources. The Department presently exempts from plan approval certain degreasers under 127.14(a)(8). Will this exemption be extended to nonmajor and area sources under the proposed rulemaking?
6. The Regulatory Analysis does not adequately document or support the contention that the regulated community will save \$7.3 million in the first year and \$14.6 million every year thereafter. According to the Preamble to the proposed rulemaking, "the purpose of this proposed regulation is to

reduce the volatile organic compounds emitted from solvent-cleaning operations." Nowhere in the Preamble or the Regulatory Analysis are these reductions quantified for purposes of demonstrating attainment with the ozone standard. The Department assumes that requiring operators of solvent-cleaning machines to make modifications to the equipment will reduce the evaporative loss of solvents and therefore, reduce operating costs. The Department provides no technical basis in the proposal or regulatory analysis to support this proposition.

7. The Department has not identified non-regulatory alternatives during the rulemaking process or explained why it disagrees with EPA's conclusion that existing regulations are adequate to protect the public health and welfare and that promulgation of the NSPS for cold-cleaning machines would have impose additional administrative burdens without providing significant emission reductions. The Department also contends the Degreasing Stakeholders Group believe the best way to implement the proposed regulation was through an outreach and education program to the users of solvent-cleaning equipment, particularly small businesses. Interestingly, the proposed rulemaking and Regulatory Analysis does not identify or discuss an outreach and education program and in the Regulatory Analysis, the Department admits there are no specific provisions in the regulation to meet the particular needs of small business.

As a member of the Pennsylvania Chamber of Business and Industry ("Pennsylvania Chamber"), we have reviewed the testimony presented on October 5, 1999 and their written comments and concur with their positions on this regulatory package. In summary, the proposed regulations are unnecessary, inconsistent and in some cases more stringent than federal standards already in place and may lead to increased emissions of VOCs if companies are forced to use less effective materials. Superior Tube believes emission reductions can be achieved through advances in technology and market-driven alternatives to high VOC content solvents. However, command and control regulations, such as the proposed solvent cleaning regulation, have proven to be unworkable in practice.

Sincerely,

James J. Masiak

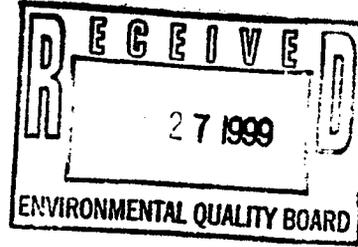
James J. Masiak
Vice President of Manufacturing

Superior Tube Company
3900 Germantown Pike
Collegeville, PA 19426-3112

Phone : (main) (610) 489-5200
(direct) (610) 489-5211
(fax) (610) 489-5333

Pepper Hamilton LLP
Attorneys at Law

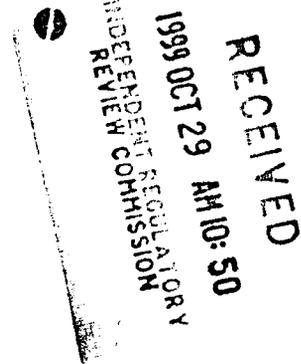
200 One Keystone Plaza
North Front and Market Streets
P.O. Box 1181
Harrisburg, PA 17108-1181
717.255.1155
Fax 717.238.0575



Original: 2058
Mizner
cc: Harris

717.255.1159
carrollj@pepperlaw.com

October 21, 1999
Nanorta
Sandusky
Legal



Environmental Quality Board
15th Floor, Rachel Carson State Office Building
P.O. Box 8477
Harrisburg, PA 17105-8477

Re: Notice of Proposed Rulemaking [25 PA. CODE
CHS. 121 and 129] Solvent Cleaning Operations.
25 Pa. Bull. 4661-4668, August 28, 1999

Dear Board Members:

On behalf of my client, Lucent Technologies, Inc., I submit the enclosed Comments on the proposed rulemaking referenced above. I have also enclosed a one-page summary of Lucent's Comments for dissemination to each Board Member. These Comments supplement the oral testimony submitted to the Board by John O'Sullivan on behalf of Lucent on October 5, 1999 at the Public Hearing in Harrisburg.

Lucent thanks the Board and the Department for the opportunity to participate in the public comment process. Representatives of Lucent are available to the Board or the Department to further explain any concerns raised in the enclosed comments. Please contact me or Michael Bramnick (973-606-4097) if you have any questions regarding these Comments.

Sincerely,

John W. Carroll

Enclosures

cc: Michael Bramnick, Esq.

Philadelphia, Pennsylvania

Washington, D.C.

Detroit, Michigan

New York, New York

Pittsburgh, Pennsylvania

Wilmington, Delaware

Berwyn, Pennsylvania

Cherry Hill, New Jersey

COMMENTS OF LUCENT TECHNOLOGIES' MICROELECTRONICS BUSINESS GROUP

Proposed Rulemaking – Solvent Cleaning Operations 29 Pa. Bull. 4661 (Aug. 28, 1999)

Background

Lucent Technologies' Microelectronics Group has its worldwide headquarters in Allentown, Pennsylvania. It grew out of Western Electric's electronics components business, which was the first in the world to manufacture transistors. Today, this Lucent business group is the world's leading provider of semiconductors for communications applications. More than 75 percent of the group's revenues derive from communications components including high-performance systems semiconductor chips and optoelectronics devices. Lucent's integrated circuit business is one of the fastest-growing semiconductor businesses in the world serving customers such as Motorola, Sun Microsystems, Compaq, Quantum, Seagate, and Hewlett-Packard.

Lucent's Microelectronics Group provides high-quality products that enable customers to deliver and receive voice, data, and images. Among the products manufactured in Pennsylvania are: (1) Integrated Circuit Digital Signal processors for modems, wired, cordless and cellular phones; (2) components and subsystems for fiber-optic telecommunications; (3) Standard-cell Application Specific Integrated Circuits, or ASIC's, for disk drives and other applications; and (4) Field Programmable Gate Arrays for telecommunications networks. Lucent's Microelectronics Group is on the leading edge of the development of semiconductor chips used in communications devices and networks. Our chips even come with a lifetime warranty.

In addition to the Allentown Headquarters, Lucent also has manufacturing facilities in Muhlenberg Township, located just outside of Reading, and in Breinigsville, midway between Allentown and Reading. Employing more than 3,900 people, the Allentown facility primarily produces Digital Signal Processors, ASIC's, and other communication related integrated circuits. The Reading facility employs nearly 2,300 people and its principle products include linear bipolar as well as high voltage integrated circuits that are used in telephone electronic switching systems, computer disk drives, and computer modems. Reading's Optoelectronics Product Unit manufactures devices for the transmission, amplification, and receipt of voice, data, and video communication signals through optical fibers. Specific devices made at Reading include cable television and high-speed digital distributed feedback laser modules, pump lasers, and other optical devices. Finally, 1,200 people work at the Breinigsville facility. Breinigsville is a leading supplier of optoelectronic modules and

components serving the cable television, telecommunication, and network computing markets.

Lucent has high aspirations for transforming the Lehigh Valley and the Reading area into high-tech centers. Capital spending at the three Pennsylvania Microelectronics facilities increased 32% from 1998 to 1999 to nearly \$200 million. In fact, Lucent is busy preparing to construct a new \$165 million office building at the Allentown Facility that, when complete in two years, will have space for 2,300 additional workers. As the Philadelphia Inquirer noted in a September 27, 1999, article, ". . . [n]ear long shuttered area plants that once made steel girders to build bridges and roadways for cars and trucks, Lucent semiconductors are paving the way for bits and bytes to travel the world." Clearly, Lucent has every intention of remaining a strong presence in Eastern Pennsylvania, a responsible employer of thousands of Pennsylvanians, and a good neighbor in the local communities where its employees live and work. However, this Solvent Cleaning Rule poses a real threat not only to Lucent's expansion in Pennsylvania, but also to its ability to operate here at all.

Lucent's Concerns With The Proposed Rule

The proposed rule targets the use of volatile organic compounds ("VOC's") in several types of solvent cleaning operations including, cold cleaning machines, hand wipe operations, vapor cleaning machines, airless cleaning systems, and air tight cleaning systems. Under the rule, this equipment and these operations must meet design, work practice, control, record keeping, and emission limitation requirements.

The proposed rule goes too far in its broad definition of a "solvent degreasing operation" insofar as it captures necessary cleaning operations beyond the degreasing of metal parts. Moreover, it ignores the distinction between cold degreasers and vapor degreasers by defining all heated degreasers as vapor degreasers whether or not the solvent is boiling – this represents a 180 degree shift from the current regulations, as well as from the manner in which EPA defines cold and vapor degreasers under the federal Maximum Available Control Technology standard. No relief from the broad scope of the rule can be found in the rule's definitions since none were provided for the critical terms "machine," "degreaser," "degreasing," and "parts." The overly broad nature of the proposed rule is further evidenced by the incomplete definition provided for the term "solvent," which:

1. Fails to exclude non-VOC solvents from its grasp such as acetone, perfluorocarbons, and hydrofluorocarbons, none of which contribute to ozone formation and all of which are excluded in the federal definition of "VOC" under 40 CFR §51.100(s); and

2. Fails to provide for a threshold below which an exemption is allowed. With no de minimis exemption, even the cleaning of components in a very small beaker would require compliance with this rule.

From Lucent's perspective, the result of these failures is that the necessary "cleaning" steps that must occur in the manufacture of semiconductor and optoelectronic components can literally no longer occur. It is critical to make clear that none of Lucent's "cleaning" processes in which solvents are used constitute "degreasing" in any sense; instead, a protective "film" is removed that had previously been placed onto the surface of the semiconductor wafer, integrated circuit, or optoelectronic component as a prior process step. This film allows the wafer, circuit, or component to move to the next step of the process where it may undergo, among other process steps, etching, deposition, and/or implantation. While the proposed regulation draws no distinction, the placement and removal of this protective layer is wholly different than metal parts cleaning. Lucent's concern with this lack of distinction is created by the proposed definition of the term "cleaning machine" which includes the use of a solvent for removal of a "coating." Similar rules in other states define solvent cleaning as removal of grease or of a contaminant.

The current state of the art in semiconductor and optoelectronic manufacturing requires the use of VOC containing solvents in many stages of the manufacturing process. Solvents may be used at room temperature, heated to below the boiling point, or used as a vapor. Solvents are generally used in small baths, sinks, or beakers, none having openings of greater than 5 square feet. Containers with an opening of less than 10 square feet are currently exempted by the Department. Based upon state of the art manufacturing processes, the cost to control emissions for these smaller units would be unreasonable and would yield little or no emission reduction. This is true for two reasons:

1. There are no non-VOC solvents commercially available for all of the process steps in which solvents are used in semiconductor and optoelectronic manufacturing, notwithstanding the Department's reference in the Proposed Rule to citric-based solvents, which may be appropriate for the general cleaning of metal parts, but are unacceptable for the film removal on precision semiconductor components; and
2. Even if ultra-low VOC solvents were commercially available, their use in our process steps would result in significant delays between process steps. A delay would occur due to the fact that such solvents would take longer to dry, or because process steps would have to be added such as baking to counter the lower volatility of the solvents. It is also conceivable that additional process steps would be needed during which a second coat of ultra-low VOC

solvent would be applied to ensure complete film removal from the wafer, circuit, or component.

In summary, the result of the proposed rule is that the cleaning steps that take place in the semiconductor and optoelectronic manufacturing process are swept in under this rule in a manner that makes continued fabrication of our products literally impossible. Lucent uses a variety of VOC and non-VOC solvents to remove photoresist and other coatings from silicon wafers and fiber optic components. Many of these operations are conducted in "clean rooms" where exhaust rates are very high and where contaminant tolerance is very low. There are no low-volatility solvents which are suitable for our applications, where removal of contaminants or coatings is measured in Angstroms (one ten-billionth of a meter).

It is thus imperative that these regulations be amended to exempt solvent processes used in the manufacture, assembly and testing of semiconductors and optoelectronics. Such processes include, but are not limited to, spray developers used to develop photoresist materials, Sysmax Etchers, photoresist stripping, photoresist cleanup, spin-on-glass operations, edge bead removal, Telmark-7 operations which include coating and edge bead removal, beam lead device processing, gallium arsenide device processing, and cleaning beakers for miscellaneous coatings removal.

Exemptions for the semiconductor industry have been retained (either explicitly or implicitly) in California, Illinois, and Maryland, the only other states to have enacted low-volatility standards for cleaning solvents. Following this reasoning, Lucent suggests the following amendment to the proposed rule:

§129.63. Degreasing operations.

* * *

(g) The provisions of this section shall not apply to solvent cleaning operations employed in the manufacture, assembly, and testing of semiconductor and optoelectronic components and devices. Such devices shall include, but not be limited to, single-function components such as a transistor, resistor, capacitor, or an integrated circuit. For purposes of this section, "manufacture" shall mean all of the integrated circuit or optoelectronic wafer fabrication processes from crystal growth to finished circuit or wafer; "assembly" shall mean the series of operations after "manufacture" in which a integrated circuit or optoelectronic wafer is separated into individual chips and mounted and connected in a package; and "testing" shall mean the performance evaluation for an integrated circuit or optoelectronic device or component that has undergone manufacture and assembly.

Lucent Concerns Further Reflected In The Chamber's Comments

Lucent expresses its strong support for the comments submitted by the Pennsylvania Chamber of Business & Industry (the "Chamber"). The Chamber's comments echo many of Lucent's concerns including hand-wipe operations, non-VOC solvents, and halogenated solvent cleaning operations currently exempted under federal regulations.

1. **Hand Wipe Operations** - The proposed rule would regulate wipes where a solvent greater than 5% VOC or HAP by weight was used, and mandate their placement in closed containers for disposal or recycling. First, such placement accomplishes nothing more than a delay in immediate evaporative loss of VOC to the atmosphere. Second, trying to collect the rags used by janitorial services within a large complex or building would be difficult and counterproductive since the rags would likely release their VOC's while the janitor makes his/her rounds. Last, the NESHAP for halogenated solvent cleaning operation excludes hand wiping from the regulatory requirement, since used hand wipes containing halogenated solvent are regulated under another program.
2. **Non-VOC Solvents** - The proposed regulation would define a "solvent" to include non-VOC compounds that are exempted under EPA's definition for VOC as listed in 40 CFR Part 51.100(s). The inclusion of non-VOC compounds in this proposed rule is unnecessary. They are not ozone precursor chemicals and, therefore, would not contribute to ozone reduction.
3. **De Minimis Threshold** - The proposed rule deletes the existing ten square foot de minimis threshold exemption for solvent cleaning operations. The lack of an exemption subjects trivial activities with insignificant amounts of VOC emissions to costly controls to meet the control requirements or the alternative emission standards.
4. **NESHAPS Subpart T standards for Halogenated Solvent Degreasers** - The agency should ensure no duplicate or inconsistent requirements be placed on affected operations that are already subject to or exempted under federal requirements.

Comparison With Other Regulatory Frameworks

In the analysis developed by the Department in support of this Proposed Rule, the Department suggests that the rules enacted in Illinois and Maryland have similar regulatory schemes, no different from what the Department proposes here. A careful reading of the Illinois and Maryland regulations show that they provide either a de minimis exemption, pertain only to the removal of

contaminants from metal parts, or carve out from its definitions certain electronics manufacturing.

Lucent Microelectronics Is Committed To Environmental Protection

The Microelectronics Group of Lucent Technologies has, as its express policy, a commitment to the protection and preservation of the environment and a safe and healthy workplace for its employees. It is our intent to be recognized by our customers, employees, community, and stakeholders as a business that upholds the highest standards of commitment to environmental responsibility, and one committed to continual improvement in environmental, health, and safety management. In support of this policy, and in recognition that environmental responsibility can go hand in hand with business success, in April of 1997, Lucent's Microelectronics Group, including these three Pennsylvania facilities, received ISO 14001 environmental certification making it one of the first multi-site businesses in the world to achieve this distinction. To receive business-wide ISO 14001 certification, all of the world-wide Microelectronics Group's manufacturing and design facilities had to conform with conditions and guidelines and pass stringent audits of their environmental management system, measured against ISO 14001 requirements. Strict adherence to these requirements is closely monitored by the Lucent Global Environmental, Health, and Safety Department and audited semi-annually by an independent ISO 14001 Registrar.

Beyond pure environmental responsibility, early in 1997, all of Lucent's Pennsylvania operations, including the three Microelectronics facilities, also were awarded the Occupational Safety & Health Administration's coveted Voluntary Protection Plan status for meeting or exceeding OSHA requirements.

Conclusion

This proposed rule, as currently drafted, will have a devastating effect on our ability to manufacture semiconductors and optoelectronic devices in Pennsylvania. Lucent hopes that the Department will heed our concerns and make the necessary revisions to the proposed regulation to allow for a targeted exemption for the manufacture, assembly, and testing of semiconductor and optoelectronic components and devices.

**COMMENTS OF LUCENT TECHNOLOGIES' MICROELECTRONICS BUSINESS GROUP
Proposed Rulemaking – Solvent Cleaning Operations**

Background

Lucent Technologies' Microelectronics Group has its worldwide headquarters in Allentown, Pennsylvania. This Lucent business group is the world's leading provider of semiconductors for communications applications. Inclusive of Allentown, Lucent employs 7,400 individuals in manufacturing facilities near Reading, and in Breinigsville.

Lucent's Concerns With The Proposed Rule

The proposed rule too broadly defines "solvent degreasing operation" capturing necessary cleaning operations beyond the degreasing of metal parts. It also ignores the distinction between cold and vapor degreasers by defining all heated degreasers as vapor degreasers whether or not the solvent is boiling – this is directly opposed to the manner in which EPA defines cold and vapor degreasers under the federal Maximum Available Control Technology standard. Definitional help is nowhere to be found, since no definitions were provided for the critical terms "machine," "degreaser," "degreasing," and "parts." Finally, the term "solvent," (1) fails to exclude non-VOC solvents, which are excluded in the federal definition of "VOC"; and (2) fails to provide for a threshold below which an exemption is allowed.

The result of these failures is that the necessary "cleaning" steps that must occur in the manufacture of semiconductor and optoelectronic devices and components can literally no longer occur. None of Lucent's "cleaning" processes in which solvents are used constitute "degreasing" in any sense; instead, a protective "film" is removed that had previously been placed onto the surface of the semiconductor wafer, integrated circuit, or optoelectronic component as a prior process step. This film allows the wafer, circuit, or component to move to the next step of the process where it may undergo, among other process steps, etching, deposition, and/or implantation. The current state of the art in semiconductor and optoelectronic manufacturing requires the use of VOC and non-VOC containing solvents to remove coatings from silicon wafers and fiber optic components. No low-volatility solvents are available for these precision cleaning processes, where contaminant or coating removal is measured in Angstroms (one ten-billionth of a meter).

Comparison With Other Regulatory Frameworks

The Department suggests in the Regulatory Analysis provided to IRRC that the rules enacted in Illinois and Maryland have similar regulatory schemes, no different from this proposal. A careful reading of the Illinois and Maryland regulations show that they provide either a de minimis exemption, pertain only to the removal of contaminants from metal parts, or carve out from the scope of the rule certain electronics manufacturing. Exemptions for the semiconductor industry have also been retained in California regulations on solvent cleaning.

Lucent's Environmental Commitment

Lucent has, as its express policy, a commitment to the protection and preservation of the environment and a safe and healthy workplace for its employees. The Microelectronics Group, including these three Pennsylvania facilities, received ISO 14001 environmental certification making it one of the first multi-site businesses in the world to achieve this distinction.

Conclusion

As drafted, the proposed rule will have a devastating effect on our ability to manufacture semiconductors and optoelectronic components and devices in Pennsylvania. Lucent expresses its strong support for the comments submitted by the Pennsylvania Chamber of Business & Industry and, more specifically, hopes that the Department will heed our concerns and make the necessary revisions to the proposed regulation to allow for a targeted exemption for solvent processes used in the manufacture, assembly and testing of semiconductor and optoelectronic devices and components.

Garner, Kim

From: Bramnick, Michael R (Michael) [bramnick@lucent.com]
Sent: Friday, October 29, 1999 3:41 PM
To: 'irrc@irrc.state.pa.us'
Cc: 'johnn@irrc.state.pa.us'; 'fiona@irrc.state.pa.us'

Original: 2058
Mizner
cc:

Harris
Nanorta
Wilmarth
Sandusky
Legal



SP70111.DOC



Comments102699.doc

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Enclosed Please find the comments submitted on behalf of Lucent Technologies to the Environmental Quality Board concerning the Proposed Degreaser Rulemaking. Please contact me with any questions.

Michael R. Bramnick
Corporate Counsel - Environmental Law & Compliance
Lucent Technologies
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REVIEW COMMISSION

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COMMENTS OF LUCENT TECHNOLOGIES' MICROELECTRONICS BUSINESS GROUP
INDEPENDENT REGULATORY REVIEW COMMISSION Proposed Rulemaking – Solvent Cleaning Operations

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INDEPENDENT
REVIEW COMMITTEE

**COMMENTS OF LUCENT TECHNOLOGIES'
MICROELECTRONICS BUSINESS GROUP**

**Proposed Rulemaking – Solvent Cleaning Operations
29 Pa. Bull. 4661 (Aug. 28, 1999)**

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1. Fails to exclude non-VOC solvents from its grasp such as acetone, perfluorocarbons, and hydrofluorocarbons, none of which contribute to ozone formation and all of which are excluded in the federal definition of “VOC” under 40 CFR §51.100(s); and
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From Lucent’s perspective, the result of these failures is that the necessary “cleaning” steps that must occur in the manufacture of semiconductor and optoelectronic components can literally no longer occur. It is critical to make clear that none of Lucent’s “cleaning”

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(g) The provisions of this section shall not apply to solvent cleaning operations employed in the manufacture, assembly, and testing of semiconductor and optoelectronic components and devices. Such devices shall include, but not be limited to, single-function components such as a transistor, resistor, capacitor, or an integrated circuit. For purposes of this section, "manufacture" shall mean all of the integrated circuit or optoelectronic wafer fabrication processes from crystal growth to finished circuit or wafer; "assembly" shall mean the series of operations after "manufacture" in which a integrated circuit or optoelectronic wafer is separated into individual chips and mounted and connected in a package; and "testing" shall mean the performance evaluation for an integrated circuit or optoelectronic device or component that has undergone manufacture and assembly.

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