

94-239



July 18, 1994

NIOSH Docket Office  
Robert A. Taft Laboratories  
Mail Stop C34  
4676 Columbia Parkway  
Cincinnati, Ohio 45226

Gentlemen:

Cabot Safety Corporation would like to thank the National Institute of Occupational Safety and Health for the opportunity to comment on the proposed rule, 42 CFR Part 84 for Respiratory Protective Devices. Cabot Safety is a manufacturer of respiratory devices, and is a member of the Industrial Safety Equipment Association (ISEA). While Cabot Safety generally supports both the proposed rule and the consensus comments that NIOSH will receive from the members of the ISEA, there are a number of specific comments that our company would like to make on its own behalf.

**MODULAR APPROACH**

Cabot Safety supports the modular approach to modifying 30 CFR Part 11. We concur that the modular approach will enable NIOSH to more quickly update and improve the process and criteria for certifying respirators. We also agree with much of the proposed module for changing the test criteria for particulate respirators. However, it is also our opinion that NIOSH should reconsider the sequence of the modules to better achieve the stated objective of making it easier for users to select the appropriate respirators. We feel that it is imperative for users to understand that one of the most critical factors in selecting the appropriate respirator is understanding the protection factor of that device. In most real world applications, we feel that the penetration of particulates into the facepiece will be determined more by the face-fitting characteristics of the respirator than by the efficiency of the filter media.

In addition, several of the modules seem to be so inter-related that any changes which are enacted in one will have an effect on the others. More specifically, establishing test and certification criteria for particulates independently from the criteria for gases and vapors may require duplication of particulate development work once the latter module becomes law. Most gas/vapor cartridges are approved and sold with prefilters so any changes in the rule that require modification of the size and/or shape of the cartridges will necessitate revisions to the filter design. These additional costs for design, tooling, etc. will increase the cost of the products.

Therefore, Cabot Safety would like to recommend that NIOSH reconsider the sequence of the modules. We feel strongly that the first module should be the one dealing with the assigned protection factors (APF's). We also recommend that NIOSH should issue the Particulate Filter Tests module, and the Gas and Vapor Requirements module at the same time. This revised order for the introduction of the modules and the inter-relationship of the modules for particulates and gases/vapors will have two effects. First, users will not develop a false sense of security based on filter efficiency, when in fact the leakage around the seal of the respirator is the major issue. Second, all the research and development efforts for particulate filters and gas/vapor cartridges can be coordinated so that the costs of the new, innovative products which result can be minimized.

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**GRANDFATHERING**

Cabot Safety generally supports the position of the ISEA regarding grandfathering provisions. The major ISEA recommendations include one for a period of six months after the publication of the final rule for acceptance of applications using the requirements of 30 CFR 11. They also include a recommendation to allow for a period of up to four years after the publication of the final rule during which companies can sell and ship products certified to 30 CFR 11.

However, because of the very close functional interdependence of cartridges and prefilters, Cabot Safety would like to propose further modifications to the grandfathering provisions. We recommend that the particulate module and the gas/vapor module be enacted in parallel. If this cannot be done, then the grandfathering recommendations proposed by the ISEA should apply immediately only to those respirators which are designed for protection against particulates. If the approval relates to the combination of gas/vapor and particulates, the grandfathering provisions should be modified to take effect after the respective period following the final approval of the Gas and Vapor Cartridge module. This approach to grandfathering will enable the respirator manufacturers to avoid the unnecessary costs associated with the duplication of development and testing efforts which may result if the Gas and Vapor Cartridge module requires still yet additional changes to the shape, size and/or function of the pre-filter media.

**LIQUID AND SOLID PARTICLES**

Cabot Safety agrees with the proposed tests for solid and/or liquid particles. However, we would like to go on record as recommending that the Occupational Safety and Health Administration (OSHA) develop specific guidelines for the enforcement of the use of the new approvals. To enable users to properly use the new approvals, OSHA should publish a document which describes the classification of aerosols as either solid or liquid. This "user manual" should provide the classification of hazards previously known as paint sprays, pesticides, etc. and define the new class of particulate filter which should be used against them. OSHA should consider a solid particulate as one which is either solid or which is contained in a particulate generated from a water-based liquid. OSHA should consider a liquid particulate as one which is generated from a non-water-based liquid. A clear classification of particulate hazards will be necessary if the users are expected to properly select the appropriate respirator.

**FILTER EFFICIENCIES AND NOMENCLATURE**

Cabot Safety agrees with NIOSH that there should be three classes of particulate efficiencies and six certification classes. However, we agree with the proposals of the ISEA regarding the filtration efficiency levels. In addition, we recommend that NIOSH utilize a system similar to that currently used in Europe for the classification of particulate filters. While not identical to the EN system, it will help efforts to harmonize the standards. We propose the following:

<u>NIOSH</u> <u>Proposal</u>	<u>Cabot</u> <u>Proposal</u>	<u>ISEA Proposal</u> <u>Filter Efficiency</u>
Type A	Class 3	99.97%
Type B	Class 2	96.00%
Type C	Class 1	90.00%

**COMMENTS ON 42 CFR 84  
FROM CABOT SAFETY CORPORATION**

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**STATISTICAL ANALYSIS OF DATA**

Cabot Safety agrees with the position of the ISEA regarding the statistical analysis of the test data. Based on the limited quantity of test samples, it is our recommendation that NIOSH use a standard deviation multiplier of 1.778 instead of the proposed 2.22. We feel that this will result in a reduction of unwarranted waste, and will avoid unnecessary additional costs of the products for the users.

We at Cabot Safety congratulate NIOSH on its efforts to improve the rules for the testing and certification of respiratory products. We agree with the modular approach to revising 30 CFR 11, and we thank you for the opportunity to comment. All the comments of Cabot Safety and the ISEA are offered for the sole purpose of providing the community of respirator users with the most effective and safe system for classifying and using industrial and health care respirators.

If you would like any additional details regarding this overview of our positions, please contact me.

Sincerely,

  
John D. Curtin, Jr.  
Chairman and C.E.O.

JDC/jjg