



NAIMA
NORTH AMERICAN INSULATION
MANUFACTURERS ASSOCIATION

**A Stewardship Program
Designed to Assure
Greater Worker Protection**

Role of Trade Associations in Effecting Change

The realization and fulfillment of an idea, the poet Robert Frost once observed, “is a feat of association.” Without question, associations are one of the largest and most powerful forces for advancing social and economic welfare in the country. The NAIMA Product Stewardship Program promises to further substantiate the vital role played by associations in the insulation industry in advancing improvements in worker safety and strengthening the ties between industry and their customers and those working with their products. NAIMA is proud to carry forward that tradition of improvement that has come to be a hallmark of trade associations.



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Overview of the NAIMA Product Stewardship Program

A Stewardship Program For Worker Protection



The NAIMA Product Stewardship Program's work practices apply to the manufacture, fabrication, installation, removal and other work settings where workers are subject to comparable exposures to Synthetic Vitreous Fibers (SVFs). The Program incorporates all applicable provisions of the Hazard Communication Standard as already required by law. While NAIMA members are responsible for compliance with these voluntary guidelines in their own operations, NAIMA and its member companies recommend and encourage compliance with these guidelines by other employers and their workers.

Recommended PEL

Perhaps the most significant feature of the NAIMA Product Stewardship Program is the voluntary permissible exposure limit (PEL) for fiber glass, rock and slag wool. The adoption of a voluntary one fiber per cubic centimeter (1 f/cc) PEL reaffirms the exposure limit that

has been recommended by industry, government and various authoritative bodies for several years.

Comprehensive Work Practices

The NAIMA Product Stewardship Program commits manufacturers to use product design, engineering controls, work practices, respiratory protection or a combination of any or all of these measures to bring fiber exposures to the voluntary 1 f/cc PEL. To strengthen these control measures, the Product Stewardship Program specifies comprehensive work practices for those working with SVFs. NAIMA provides training DVD's to help educate workers and employers about these recommended work practices. NAIMA provides educational tools such as DVD's and literature to further explain the recommended work practices.



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Recommended Respiratory Protection

A fundamental aspect of the recommended work practices deals with when and where to use respiratory protection. The NAIMA Product Stewardship Program recommends respiratory protection whenever exposures on a job exceed the 1 f/cc 8-hour time-weighted average (TWA) PEL. The type of respirator recommended is an N95 series dust respirator certified by NIOSH.

Exposure Database

The NAIMA Product Stewardship Program includes an exposure database to help contractors and workers determine the level of potential exposure to fiber glass, rock wool or slag wool for a given task. Exposure monitoring and an exposure database are closely related to the respiratory protection guidelines and offer contractors a way to determine whether respiratory protection is necessary for a particular job. This will not only help contractors follow the Product Stewardship Program, but may also greatly reduce the burdens that contractors would otherwise incur under OSHA'S Respiratory Protection Standard.



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Commitment to Communication



NAIMA's renewed Product Stewardship Program reflects the input of international industry, trade associations, OSHA, Labor and others. In our continued commitment to safety, NAIMA will always make the latest information available through training DVDs, literature pieces, industry related tradeshow, and the website.

n Video/DVD

NAIMA has available a video or DVD to impart detailed and helpful information on working safely with SVFs. The *Play It Smart, Play It Safe* video/DVD is educational and presents work practice recommendations in an entertaining and concise manner. It is available free of charge in both English and Spanish.

n Literature

In addition to the video/DVD, NAIMA has available literature that further explains and illustrates the various components of the safe work prac-

tices and the exposure database. The *Working Smart with Fiber Glass, Rock Wool and Slag Wool Products* brochure contains complete details on all work practice recommendations contained in the NAIMA Product Stewardship Program. The brochure is provided in both English and Spanish.

n Literature at Trade Shows

NAIMA literature related to the Product Stewardship Program will be available at appropriate trade shows. Contractors and labor unions may request multiple copies of the literature from NAIMA. Individual workers are also invited to request literature from NAIMA.

n Literature on the Internet

NAIMA's website features information related to the Product Stewardship Program.

Comprehensive Work Practices

Safe Work Practices Demonstrate Industry's Commitment to Product Stewardship



NAIMA has established comprehensive work practices for those working with SVFs. NAIMA provides work practices in both DVD, video and written format. The work practices also include recommendations for cost effective engineering controls (when applicable), proper respirator use, use of protective clothing and work place guidelines. These work practice recommendations demonstrate the industry's product stewardship commitment to identify the best work practices and promote the continuous improvement of the appropriate handling and use of SVF products.

Work Practices Offer Specific Suggestions on Reducing Exposures

These work practices provide helpful tips on protecting workers against irritation and excessive exposure to fibers.* In addition, they provide specific suggestions on how to minimize dust generation, when and how to obtain prop-

er ventilation, the selection of appropriate work clothing, the proper use of personal protective equipment and how to remove fibers from the skin and eyes. In addition, these recommendations outline safe work practices for different applications of SVFs. For example, specific guidelines are provided for blown SVFs in attics, cavity fill insulation, boiler and pipe insulation, removal activities, and many more.

Consolidation of Work Practices From Around the World

In preparing these work practices, NAIMA reviewed suggested work practices from foreign countries, labor unions and individual synthetic vitreous fiber companies. NAIMA also sought and incorporated comments from contractors and other entities knowledgeable about SVF work practices.

The investigation of different work practices revealed that in recent years



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* This is a mechanical irritation, and does not meet the U.S. OSHA HAZCOM definition of "irritation" specified in Appendix A to 29 C.F.R. § 1910.1200.

additional suggested guidelines have been added to what NAIMA has historically presented as safe work practices. Therefore, NAIMA and its members wanted to amass all relevant and appropriate guidelines into one comprehensive document. NAIMA's expanded work practices represent a collection of work practices from throughout the world. Most of these work practices are common sense suggestions of proper precautions for a safe working environment.

These work practices were also key components of the earlier OSHA-NAIMA Health and Safety Partnership Program (HSPP). The HSPP was a comprehensive eight-year partnership program with OSHA, which NAIMA completed in 2007, and now NAIMA incorporates these safe work practices into NAIMA's Product Stewardship Program. Virtually all of the Product Stewardship Program's work practices were part of the HSPP, and were endorsed by OSHA.



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Recommended Respiratory Protection

NIOSH Certified N95 Respirator Recommended



NAIMA's recommended respiratory protection follows the requirement of OSHA's Respiratory Protection Standard. OSHA indicates in the preamble to that Standard that in most circumstances disposable respirators provide a protection level equal to that of more costly respirators. OSHA's Respiratory Standard therefore allows for the voluntary use of disposable respirators.¹

While NAIMA recommends a higher quality disposable respirator than some workers may be accustomed to using, the recommended respirator is still very affordable and only slightly differs in price from routine dust masks. NAIMA is recommending a NIOSH Certified N95 filtering facepiece dust respirator for most applications faced by contractors. Unique applications or unusual

circumstances may require a more protective respirator.

Fit-Testing Should Be Part of Program

NAIMA recommends that workers wearing a respirator be properly fit-tested using a qualitative or quantitative fit test. Most respirator manufacturers provide fit-testing procedures on the package label. These instructions should be followed. Fit-testing does not have to be conducted by a certified industrial hygienist. Normally an employee can be trained on the procedure for performing a proper fit-test. Therefore, if the contractor has employees wear respirators, fit testing should be part of the company's Respiratory Protection Program.

NAIMA's Product Stewardship Program Mirrors OSHA's Respirator Standard

1. 63 Fed. Reg. at 1191 (January 8, 1998).

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NAIMA's recommended respiratory protection mirrors OSHA's Respirator Standard. NAIMA provides guidance on the selection and use of respirators in its *Play It Smart*, *Play It Safe* DVD and Product Stewardship Program literature.



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Recommended PEL

1 f/cc PEL for SVFs Is an Appropriate and Protective Exposure Limit

NAIMA and its member companies believe that a 1 f/cc Permissible Exposure Limit (PEL) is an appropriate and protective exposure limit. The 1 f/cc PEL represents an effort on the part of the industry to establish assurance and confidence among workers that exposures are well within the comfort and safety zone. Moreover, NAIMA has identified a 1 f/cc PEL as the appropriate exposure level to significantly reduce potential irritation* to throat and eyes.

Manufacturers Have Recommended 1 f/cc PEL Since 1992

The recommendation of a 1 f/cc PEL is not a new development nor did the recommendation originate with the voluntary Health & Safety Partnership Program (HSPP). Manufacturers have been recommending a 1 f/cc PEL since 1992 on company material safety data sheets (MSDS) and promotional material. The 1 f/cc recommendation was also

endorsed by OSHA in 1999 when NAIMA and OSHA established the Health & Safety Partnership in 1999.

In June 1992, OSHA proposed to amend permissible exposure levels for air contaminants in the construction, maritime and agriculture industries. As part of that air contaminants standard, OSHA specifically proposed a PEL of 1 f/cc for SVFs. The industry and labor supported OSHA's proposed PEL of 1 f/cc. Due to a court decision concerning other substances included in the same rulemaking, OSHA was required to withdraw the proposed PEL standard.

Industry Establishes a Clear Message on Appropriate Protection Level

NAIMA also recommends a 1 f/cc PEL to add a voice of unity to: OSHA's proposed 1 f/cc PEL of 1992;¹ the Ameri-

*NAIMA's recommended
1 f/cc PEL
represents the unified
recommendations of
OSHA, ACGIH, and the
State of California*

*PERMISSIBLE
EXPOSURE LIMIT*

*1 Fiber per Cubic
Centimeter*

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* This is a mechanical irritation, and does not meet the U.S. OSHA HAZCOM definition of "irritation" specified in Appendix A to 29 C.F.R. § 1910.1200.

can Conference of Government Industrial Hygienists' (ACGIH) adoption of a 1 f/cc Threshold Limit Value (TLV) in 1997;² and the State of California's Air Contaminant Advisory Committee's recommendation of a 1 f/cc PEL in 1997,³ and the HSPP's OSHA endorsed recommendations of 1 f/cc.⁴ By

supporting the recommendations of these governmental and professional bodies, the industry establishes a clear message on the appropriate protection level. A consistent and unified message eliminates confusion and uncertainty about what is really the proper protection level.



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1. 57 Fed. Reg. at 26,002 (June 12, 1992).
2. ACGIH. 2001. Synthetic Vitreous Fibers. Supplement to documentation of the threshold limit values and biological exposure indicies. American Conference of Governmental Industrial Hygienists. Cincinnati, OH.
3. <http://www.osha.gov/sltc/syntheticmineralfibers/table.html>
4. Toxicological Profile for Synthetic Vitreous Fibers (U.S. Department of Health and Human Services, Public Health Services, Agency for Toxic Substances and Disease Registry), September 2004, P.11, P.218 (Table 8-1).

Exposure Database

Determines Level of Potential Exposure to SVFs For Specific Tasks



With the establishment of a 1 f/cc TWA PEL for application of Synthetic Vitreous Fibers (SVF) products, the question naturally arises about how contractors will know if their workers are exposed to fibers in an amount above or below the recommended level. Many contractors are understandably concerned about any requirement to conduct exposure monitoring for different job or task scenarios. While some contractors may choose to conduct their own exposure monitoring, the NAIMA Product Stewardship Program provides a mechanism that exempts contractors from the expense and time of exposure testing.

NAIMA Creates Exposure Database

To help contractors and workers determine the level of potential exposure to fiber glass, rock or slag wool for a given task, NAIMA has established an exposure database containing existing information about exposure levels catego-

rized by product type and specific work task. NAIMA is committed to maintaining and updating this database.

Foundation of Database

The foundation of the database is a compendium of exposure test results assembled and collected as part of the Health and Safety Partnership Program (HSPP). NAIMA has analyzed exposure data involving typical exposure levels for many common jobs, and the majority of these jobs currently can be completed without exceeding the exposure limit of 1 f/cc TWA. Maintained at Arizona State University, the NAIMA database currently includes exposure data collected from a variety of sources, including manufacturers, contractors, academic institutions and third-party organizations. NAIMA member companies will continue to evaluate exposures and examine product improvements to reduce exposure potential.



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Contractors Can Rely on NAIMA Database

Contractors can rely on the information contained in the NAIMA database to determine potential exposure levels for a given task and the need for respiratory protection. NAIMA's exposure database will not only help contractors comply with the Respiratory Protection Standard and in most cases alleviate the need to conduct exposure monitoring. OSHA has authorized reliance upon such a database.¹

Using the Database

Information may be extracted from the database by contacting NAIMA in writing or by telephone for the specific type of information needed. NAIMA is confident that its database is large enough to address most exposure scenarios. This information will enable contractors and union representatives to ascertain the exposure level for a given work setting.

The database is organized in product specific categories, and lists exposure information from manufacturing, fabrication, installation and removal operations.

Manufacturers' Exposure Results To Be Included

NAIMA's member companies are committed to contributing exposure monitoring results obtained from manufacturing, fabrication and installation activities in order to update the database. NAIMA's member companies periodically conduct exposure

monitoring of non-manufacturing work sites. When such exposure data becomes available, NAIMA's member companies are committed to providing those exposure results to NAIMA for inclusion by Arizona State University in the exposure database. These results will be used to augment the existing storehouse of knowledge, but they do not represent the sole source of new information.

NAIMA's Own Exposure Data To Be Included

NAIMA itself conducts studies on such operations as removal and installation of SVFs. Any NAIMA study or test that addresses exposure levels will be added to the exposure database.

International Exposure Data Invited

NAIMA has also obtained exposure data from trade allies in Europe, Canada, Australia, Japan and other regions of the world. In addition, labor unions, trade associations for contractors and individual companies are all invited to contribute any exposure data, which they believe would expand the overall quality and substance of the exposure database.

1. 63 Fed. Reg. at 1151, 1199 (January 8, 1998).



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ABOUT NAIMA

NAIMA is a trade association of North American manufacturers of fiber glass, rock wool, and slag wool insulation products. NAIMA's role is to promote energy efficiency and environmental preservation through the use of fiber glass, rock wool, and slag wool insulation products and to encourage safe production and use of these insulation products.

NAIMA MEMBERS

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Nolanville, TX

CertainTeed Corp.
Valley Forge, PA

Evanite Fiber Corp.
Corvallis, OR

Fibrex Insulations, Inc.
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Guardian Building Products, Inc.
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Industrial Insulation Group, LLC
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Isolatek International
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Johns Manville
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Owens Corning
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Rock Wool Manufacturing Co.
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Roxul, Inc. / Roxul (West) Inc.
Milton, Ontario

Sloss Industries Corp.
Birmingham, AL

Thermafiber, Inc.
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