



Workplace Quality News



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PSP 2000 Updating the Strategic Plan

SPECIAL FEATURE ARTICLE

THE REFRACTORY CERAMIC FIBERS COALITION ("RCFC") IS TAKING THE INITIATIVE to consult with customers, employees, regulators and other interested parties to redefine the prospective goals and objectives of the *product stewardship program* ("PSP") for *refractory ceramic fibers* ("RCF"). With passage into a new millennium, it is a good time to reexamine the PSP. Are there better ways to pursue the core principals of the PSP? Is the PSP properly focused? Are the right priorities being pursued? What tools do customers need to achieve continuous improvement in exposure reduction? These are important questions - ones we felt were worthy of some time and careful consideration.

Following discussions with a variety of interested parties and in consultation with representatives of the *Environmental Protection Agency* (EPA), *Occupational Safety and Health Administration* (OSHA) and the *National Institute for Occupational Safety and Health* (NIOSH), RCFC has drafted a revised strategic plan, entitled "**PSP 2000**" that will be used to guide our stewardship efforts during the next five years.

The current DRAFT of the PSP 2000 plan incorporates an intent to continue many of the ongoing initiatives that we have grown accustomed to during the past decade

(e.g., exposure monitoring, epidemiology study, communications, etc.). The DRAFT also includes some new facets that reflect comments and suggestions received to date (e.g., supplemental respiratory protection questions, new respirator use recommendations, industry reporting requirements, etc.) from both customers and government personnel.

To facilitate broader participation in the development of the PSP 2000 strategic plan, RCFC has posted the most recent DRAFT of this agreement on its web site. To access this draft agreement please use the Internet address www.RCFCoalition.org or www.RCFC.net; then, click on the PSP 2000 section of the "topics" menu on the left side of the page. For those interested individuals without internet access, please call Tammy Wolosin, at 1-800-322-2293, to obtain a hard copy or faxed copy of the draft document.

Please take some time to review the PSP 2000 document. We would appreciate your feedback, comments, and concerns. RCFC has also committed to obtain comments from a number of "stakeholders" on August 10, 2000. At that meeting, we also plan to present a summary of the feedback, from all interested parties, which has been received by that date. Please address your comments to William P. Kelly, RCFC President and email them to RCFC@buffnet.net.

Past success of the PSP has depended critically upon the active participation of many organizations and individuals.

Looking into the future, we hope to continue to benefit from this team approach. Thank you, in advance, for participating in this process.

KEY ELEMENTS OF THE DRAFT PSP 2000 PLAN

In preparing this next generation strategic plan, it is important to reflect on why we choose to maintain our stewardship commitment. Recall that the RCF industry-sponsored toxicology studies which indicated that specially prepared, rodent respirable RCF is an animal (rats & hamsters) carcinogen following high-dose, long-term exposure. We don't know why the biological effects occur (the mechanism) or whether the animal results are relevant to workers. We do know, based on medical surveillance studies of RCF workers, that long-term occupational exposure to RCF has not resulted in significant health effects (respiratory disease). We think that PSP is the answer to the question, "How do we pro-actively and effectively manage POTENTIAL health effects and any related UNCERTAINTY?"

In the PSP 2000 plan, RCFC will continue to pursue several core principles:

1. To evaluate and mitigate potential health concerns,
2. To facilitate and encourage reductions in occupational exposures to RCF;
3. To promote proper handling practices, throughout the RCF life-cycle; and,
4. To seek continuous improvement in PSP

performance and results.

We have also incorporated into the PSP plan the key elements of the current PSP: Health Effects Research; Exposure Monitoring; Evaluating Workplace Controls; Customer Communications (Training & Education); Exposure (Population) Assessments; Product Research; and Special Studies.

So what's new? Some of the more noteworthy changes include:

- Exposure Monitoring: A change in emphasis from a focus on time trends to identifying control technology effectiveness and exposure reduction.
- Handling Practices: Guidelines for proper

RCF storage, handling and use.

- Respiratory Protection: Additional recommendations regarding respirator use, respirator type, compliance with OSHA respiratory protection standard.
- Recommended Exposure Guideline: Place greater emphasis on decisions based on RCFC's 0.5 f/cc, time weighted average exposure recommendation.
- OSHA Enforcement: Employer implementation of the PSP 2000 may help demonstrate compliance with OSHA general duty clause requirements.

How will the PSP 2000 affect you? Many customers/users will be virtually unaffected by the implementation of PSP 2000.

Others may be impacted, perhaps significantly. Generally, most of the responsibility for implementing the agreement will remain with RCF manufacturers. However, there are implications for RCF customers. For example, it is possible that some aspects of the program could be considered as establishing an industry standard for purposes of regulatory compliance or be used to support liability claims for personal injury.

We suggest you read the document carefully. Let us know your views while we still have an opportunity to act. We hope to complete the PSP 2000 plan in the near future.

AIHCE Conference Activities

Tammy Wolosin, Program Coordinator, Health, Safety, and Environment

The Refractory Ceramic Fibers Coalition (RCFC) and the European Ceramic Fibres Industry Association (ECFIA) teamed up at the American Industrial Hygiene Conference and Exposition (AIHCE) to participate in a number of poster sessions, a technical session, a round table session and an RCFC/ECFIA Joint Meeting. Also, the RCFC manned an Exhibit Booth Monday, May 22 through Wednesday, May 24.

RCFC and ECFIA representatives prepared materials for display in poster sessions as follows:

- PRODUCT STEWARDSHIP AND SOLUBLE FIBER DEVELOPMENT: A 3D PERSPECTIVE given by Greg Drumm, CIH, Unifrax Corporation (an RCFC participant) and Dawn Webster, CIH, St. Gobain, England (an ECFIA participant);
- EVALUATION OF HEALTH HAZARDS FROM THE EXPOSURE TO CRYSTALLINE SILICA-CONTAINING DUST FROM AFTER-SERVICE HIGH TEMPERATURE INSULATION WOOLS given by Bob C. Brown, Toxicology Service, England (an ECFIA participant); Steve Chen, Thermal Ceramics (RCFC participant) and Dr.

Richard Waugh, Thermal Ceramics, (RCFC participant); and

- EUROPEAN CLASSIFICATION OF REFRACTORY CERAMIC FIBER ALTERS MARKET BEHAVIOR AND INDUSTRIAL PERSPECTIVE given by James E. Cason, Unifrax Corporation (an RCFC participant) and Patrick Sebasian, St. Gobain, France (an ECFIA participant).

The Round table on A FORUM ON SYNTHETIC FIBERS IN THE WORKPLACE: WHERE LESS FIBER IS HEALTHIER was chaired by Ralph Zumwalde, NIOSH; panel participants included John Dement, Duke University; Adam Finkel, OSHA; William Kojola, AFL-CIO; Tom Calzavara, Johns Manville; Steve Hacker, Solutia, Inc. and Dean Venturin, Unifrax Corporation (RCFC).

The round-table panel presented their perspectives on several key aspects concerning synthetic vitreous fibers (SVFs), including the implications of toxicology and epidemiology studies; the concern of organized labor; regulatory requirements; and industry initiatives.

Dean Venturin's presentation on RCF product stewardship was a hit. We also

received accolades that he was prepared, polished and professional.

A Technical Session on AN EVALUATION OF WET AND DRY METHODS FOR DECREASING EXPOSURE TO REFRACTORY CERAMIC FIBERS (RCFs) DURING DISC AND BELT SANDING was also held by Kevin H. Dunn, NIOSH. Other contributing authors included: A. B. Cecala, NIOSH; S. A. Shulman, NIOSH; J. M. Cleary, NIOSH; Jeff C. Treadway, Vesuvius/Premier Refractories (RCFC) and Dean E. Venturin, Unifrax Corporation (RCFC).

This presentation described the "Partnering" initiative undertaken by industrial hygienists from the National Institute for Occupational Safety and Health (NIOSH) and RCFC, to assess the effectiveness of engineering control options for sanding operations. This cooperative effort demonstrated that the introduction of properly designed engineering controls can substantially reduce (circa 99% effective) the potential for exposure to airborne fiber. Dr. Dunn complimented RCFC regarding its commitment to product stewardship and its willingness to work with NIOSH. RCFC and NIOSH are also considering other options for further cooperative efforts.

Vacuum Former Establishes In-House Monitoring Program

Dean E. Venturin, Manager, Health, Safety, and Environment

"Give a man a fish and he will eat for a day, teach a man to fish and you feed him for life." The wisdom of that old Chinese proverb (author unknown), has been reaffirmed through the efforts of a proactive Refractory Ceramic Fiber (RCF) vacuum forming corporation. Last year, David Rex, President of Rex Roto Corporation, tasked the management teams at each of his three vacuum forming plants to implement an in-house airborne fiber monitoring program. The objective of this initiative was to improve Rex Roto Corporation's ability to manage the potential health issues associated with the use of Synthetic Vitreous Fibers (SVF's). It was clear to Dave Rex that the benefits of having in-house industrial hygiene monitoring capabilities were substantial.

In addition to providing greater flexibility for scheduling purposes and allowing for a greater number of samples to be collected, in-house monitoring capabilities also allow the users of SVF's to make better Risk Management decisions in a variety of health and safety related functional areas. One function of in-house monitoring data would be to assess the need for Personal Protective Equipment (PPE), such as respiratory protection. The proper selection of respiratory protection is premised on correctly answering two primary questions:

- 1) What is it that you need to protect an employee from (e.g., airborne fiber, organic vapor, welding fume, etc...)?
- 2) What ambient concentrations of an airborne contaminant is the employee anticipated to encounter?

Reliable and comprehensive industrial hygiene monitoring data will provide the information necessary for the proper selection of respirators and the implementation of a respiratory protection plan. It should be noted, however, as important as respirators are for protecting workers, the Occupational Safety and Health Administration (OSHA) gives priority to

engineering controls over respirators for the protection of workers from airborne contaminants.

Industrial hygiene monitoring also plays a vital role in the design and installation of effective engineering controls (dust collection). In-house monitoring capabilities allow SVF users to perform engineering control effectiveness evaluations within their plants on various target operations regardless of how infrequent the operation is performed. The true test of any dust collection system is how effectively it can capture airborne contaminants before they enter the employee's breathing zone. One common method of evaluating the effectiveness of engineering controls is to perform short-term Task Length Average (TLA) sampling both before and after the use of engineering controls. One way to perform this type of monitoring is to set up a controlled simulation. In a controlled simulation the objective is to isolate only the effects of the engineering controls. All other potentially confounding factors such as the operator, time sampled, sampling flow rate, amount of material processed, and process flow rates are carefully controlled. Measurements are then collected both with and without the benefits of engineering controls in order to assess the relative effectiveness of the control efforts. Modifications and adjustments (fine tuning) of the engineering controls can then be made to maximize collection efficiency.

In-house monitoring capabilities also allow SVF users the ability to more accurately assess employee exposures over time. The drawback of relying on outside industrial hygiene services is that manufacturers typically get only a "snap shot" of employee exposures for a single day on a limited number of employees. Repetitive sampling over time allows for the statistical evaluation of exposure trends allowing employers to make decisions based on a representative sample of employee exposure measurements. One common misconception among some SVF users is that the

cost, in terms of time, the purchase of equipment and analysis could be prohibitive. The fact is that establishing a program and performing airborne fiber monitoring is relatively easy and, as was demonstrated at Rex Roto Corp., the benefits far outweigh the costs.

David Rex of Rex Roto Corp. is quick to point out "the ability to perform our own monitoring was a key factor in helping us drive down the airborne fiber levels within our plants to well below the Recommended Exposure Guideline (REG) of 0.5 f/cc (8-hr. TWA)." David also noted that "the cost of setting up an in-house airborne fiber monitoring program was more than offset by the cost savings derived from reducing our need for respiratory protection, associated supplies, medical evaluations and employee training."

As was demonstrated at Rex Roto Corp., setting up an effective airborne fiber monitoring plan was a sound business decision that greatly benefited the company, and its employees, in a number of ways. Unifrax and the Refractory Ceramic Fibers Coalition (RCFC) collectively, have a great deal of experience with industrial hygiene monitoring and can assist the RCF users to establish their own fiber monitoring programs. Unifrax can assist customers with locating suppliers of quality industrial hygiene sampling equipment, the design of a site-specific monitoring plan, and on-site instruction on sample collection. The RCF Product Stewardship Program (PSP) has established a strong track record within both industry and the regulatory community for assisting RCF users with managing the potential health issues. The successful monitoring program at Rex Roto is just one more example of the commitment Unifrax and its customers have made to promoting the responsible use of RCF containing materials.

For additional information, please contact the PSP Health Hotline at 1-800-322-2293.

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NUMBER 10

(Order Code: C-1321-Q)

- Dust-Hound... A Portable Dust Collection Unit
- Portable Power Tools With Integral Dust Collection
- Recommended Handling Practices For RCF Blankets & Felts

NUMBER 11

(Order Code: C-1322-11)

- Risk Assessment Summary
- A New Era In Respiratory Protection
- Unit Operational Code Of Practice & Engineering Controls Guidebook

NUMBER 12

(Order Code: Amh-wqn-12)

- NIOSH and RCFE Team Up To Promote Airborne Fiber Reduction Strategies
- Overview Of Airborne Fiber Monitoring
- Findings From European RCF Health Study

NUMBER 13

(Order Code: Amh-wqn-13)

- PSP 2000 - The Strategic Plan
- AIHCE Conference Activities
- Vacuum Former Establishes In-House Monitoring Program



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