



American Reusable Textile Association PO Box 1073 Largo, Florida 33779-1073

March 26, 1998

Ms. Diane Miller
NIOSH Docket Office
4676 Columbia Parkway
Mailstop C-34
Cincinnati, Ohio 45226

Dear Ms. Miller,

The American Reusable Textile Association (ARTA) and our membership have reviewed the Federal Register Notice regarding NIOSH's draft document "Review of NIOSH Report to Congress on Workers' Home Contamination Study Conducted Under the Workers' Family Protection Act (29 U.S.C. 671a)". ARTA has some concerns relative to the direction and implications in this report.

First, our organization is in support of protecting our families and children from occupational hazards that have a potential to be brought home. However, as the report points out, there is very little scientifically valid data by which to make a determination about the gravity of the problem, including which industries and what hazards are truly a threat to our family members. We believe that the task force recommendation for surveillance is totally appropriate and should be funded. However, the other recommendations are at best premature including assessment of the performance of existing protective clothing, assessment of the use and acceptance of protective clothing, research and development of new types of materials and measures to ensure that protective clothing is designed to fit the growing numbers of minority workers. How can the performance of protective clothing or new materials be developed if the specific hazards that have a potential to be brought home are not identified? Different hazards will require different evaluation techniques and certainly different types of protective clothing depending on whether the hazard is biological, particulate, gaseous, hydrophilic, oleophilic, etc.

The other concern about concurrently moving ahead with surveillance and evaluation of protective clothing is that protective clothing should only be viewed as a safety net and not a primary means to prevent contamination of the worker and any subsequent chance to bring hazardous materials home. Keep in mind that if protective apparel is being contaminated with hazardous substances the chances are very high that the workers' skin, hair and respiratory system are probably being exposed as well. The emphasis must be on minimizing/preventing the chance for exposure through work procedures or environmental controls. This must be identified as the responsibility of each employer – identify the potential risk, minimize the potential occurrences and, if appropriate, take additional measures such as providing appropriate work apparel, protective equipment, showers, etc. With the primary focus on work procedures and environmental controls, we will inherently be protecting our families as well as the workers from potential hazards. The issue of employer's responsibilities, including their surveillance, common work practices/methods and the use of environmental controls relative to specific industries and hazards, is noticeably absent from the draft document.

The other and more disturbing issue for our membership is the reference to and the insinuation that in some instances disposable garments are the best/only option - "In these situations, and where there are contaminants (such as asbestos), disposable (single-use) garments is an option." Please reference a copy of the attached letter from Mr. Howard Zins previously sent to address this document and the use of these references by disposable manufacturers to further their marketing efforts. The advantage that is being gained by the disposable industry is not based on scientifically valid information and is not meeting the intent of the Workers' Family Protection Act. In handling hazardous substances through the use of

To create greater appreciation and acceptance for reusable textiles.

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disposable items, you must address the issue of exposing a significant number of individuals down stream of this waste and their families as well – waste handlers, transportation, landfills and/or incinerator operators. Typically these waste streams are not set up to handle hazardous materials. In addition, let's not forget that from an environmental standpoint our society should be minimizing waste generation and certainly preventing hazardous substances from entering into landfills.

With regard to reusable garments, the processing industries that exist have various equipment and processes to:

- disinfect biological contamination and make both the item and the wastewater safe to handle.
- filtration systems are available to remove and concentrate particulate contaminants therefore minimizing waste and subsequently environmental impact.
- distillation practices are utilized in dry-cleaning operations that can remove and concentrate oleophilic contaminants.
- chemicals can be used to degrade/decompose certain chemicals/stains.
- various safety systems are used to identify, handle and dispose of hazardous materials.

This industry has been very successful in developing cost effective, safe and environmentally sound reusable garments and processing techniques for critical end use applications including class 100 clean room garments for the semiconductor and pharmaceutical industries, sterile surgical gowns and textile packs for healthcare, garments for NASA, protective garments for the military and garments for the nuclear industry. There is no question that if a specific hazard is identified, our industry is capable of developing a cost effective and environmentally sound reusable textile program to meet their needs. Again it is critical that specific industries and "true" hazards to workers and their families be identified.

In summary:

1. We need to proceed with a plan to protect workers and their families that is based on scientifically valid information and not on emotions or speculation. Surveillance must identify specific industries and hazards. Focus must be placed on the responsibility of each employer to minimize/prevent contamination of workers and their clothing. The focus on protective apparel should follow these activities only when necessary.
2. The discussion and references to disposable garments is inappropriate and misplaced. It shows a lack of understanding of the reusable industry, it ignores the problems created for individuals down stream of this waste and it is not an environmentally sound alternative for our society.

ARTA supports the efforts to protect workers and their families from potentially hazardous/harmful situations that can develop, but not at the expense of our industry because of unfounded speculation or preferential treatment given to the disposable industry. We take our responsibility seriously to protect the rights of our members, their employees and our position in the global marketplace. If you have any questions or would like to discuss our future involvement with regard to this proposal, please do not hesitate to give Howard Zins or myself a call.

Sincerely,



Bradley J. Bushman
Vice President, ARTA
(Director, Technical Resources at Standard Textile Company, Inc)



American Reuseable Textile Association
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June 3, 1996

Dr. Linda Rosenstock
Director of the National Institute for Occupational Safety and Health
U. S. Department of Health and Human Services
200 Independence Avenue, SW - Room 715H
Washington, DC 20201

Dear Dr. Rosenstock:

An article which appeared in *Nonwovens Industry* has been recently noted. The article emphasized two major points:

1. Cases have been cited where workers homes have been contaminated by toxic, infectious and radioactive materials brought home on soiled clothing. NIOSH recommends that workers change clothes prior to leaving the work site.
2. In that soiled laundry presents the possibility of exposure to laundry workers, single use, disposable items are suggested as a possible alternative to launderable apparel. This view is also suggested in a report to Congress where it is stated that "the difficulty of decontaminating work clothing, the prominence of clothing as a source of home contamination, and the potential exposure of the launderer are problems that can be avoided through the use of disposable work clothing. The use, availability and cost of this alternative need to be assessed" (2).

We believe that this second point concerning single use disposable apparel presents many difficulties to our society as a whole and the American Reuseable Textile Association would like very much to work within any existing or planned study group which may deliberate upon this issue.

There are many factors which must be taken into consideration regarding this matter including the following:

- As a solution to any problem is considered, government and industry must be certain that resultant solutions do not create even greater problems to a broader population across our nation or throughout the globe. In this regard, the possible broadening use of disposable products may create additional, possibly critical difficulties.

- The Environmental Protection Agency has recently published a proposed standard for medical waste incinerators (7). This proposed standard discloses certain findings including the fact that Medical Waste Incinerators (MWI's) have been identified as the largest known source of dioxin emissions in the U. S. Findings related by the EPA in the proposed standard discloses that dioxin exposure can cause both cancer and non-cancer health problems in humans.
- Additional studies have reported that Medical Waste Incinerators generate not only dioxins, but also furans, carbon monoxide and heavy metals, all of which impact negatively on our environment. (4, 5).
- A recent concept has been identified as a multi-pathway risk assessment (8). The concept identifies numerous ways in which emissions from incinerators threaten our ecology. This includes general air pollution, which can downgrade the quality of the air we breathe, a concept broadly understood. However, the theory continues to disclose additional risks including potentially harmful substances ingested by livestock. Furthermore, cows milk, as well as mother's milk, can be contaminated by impurities in the air. In addition, lakes, streams, bays and inlets can also be negatively impacted. Poor air quality can also adversely impact drinking water and crops, the latter which can be contaminated by impurities in both the air and irrigation water.
- Medical, toxic, radioactive, and general waste can also be sent to regulated landfill locations. However, there are diminishing numbers of landfill sites available for waste disposal (7). Furthermore, leachate generation and other problems to groundwater, and to the environment in general, are well known (7).

Bearing in mind the many difficulties which both incineration and landfill use present to our nation's environment, increased utilization of single use disposable products should be considered with extreme caution. In that single use products are generally disposed through either incineration or at landfill locations, the many significant problems, identified in the preceding outline, would increase as disposable product selection might proliferate within our society.

- With the introduction of OSHA's final rule (9), occupational exposure to blood borne pathogens, it has been demonstrated, during the last 4 years, that the hazards associated with this exposure, if properly addressed, can be satisfactorily managed within the healthcare sector and within those laundries which serve that area. This has been done through the utilization of universal precautions as advised by the Centers For Disease Control (CDC), the selection and use of Personal Protective Equipment (PPE), and through the principles of hazard communications.

Additional occupational exposure to various materials are addressed and managed through the guidelines of the Hazard Communications (10) and the Toxic and Hazardous Substances (11) standards.

In general, the hazards which may exist within laundries, are no greater, and possibly less, than those in other occupational locations. Similar to other service and manufacturing sectors the risks encountered can be properly managed by following the guidelines of the various regulations already cited and through careful and informed personnel training and management.

It is interesting to note the findings of the CDC (17) which states the following:

"Although soiled linen has been identified as a source of large numbers of certain pathogenic micro-organisms, the risk of actual disease transmission is negligible. Rather than rigid procedures and specifications, hygienic and common sense storage and processing of clean and soiled linen are recommended".

- The statement concerning "the difficulty of decontaminating work clothing" (17) does not recognize the work which the laundering industry has accomplished in producing clean, hygienic garments which have been worn in many industries and work exposures. As ARTA may join any working group investigating the entire matter of laundering garments exposed to various substances, significant details can be related concerning the appropriate procedures and methods presently used in the laundering field.
- It should also be noted that laundries, many of which are located within virtually all of our nations cities and counties, offer employment to many thousands of workers, many of whom have specialized skills. As efforts may develop which could lead to decreased utilization of laundries, resultant changes and dislocations could lead to laundry workers moving from roles supporting our society as productive tax paying resources to growing numbers of those seeking government assistance for food, housing and healthcare.
- It is also suggested that the subject of any proposals or standards be developed based on the principles set forth by the American National Standards Institute (ANSI). These include due process requirements, openness and balance. With regard to the latter point, ANSI (18) states the following:

"The Standards Development process should have a balance of interests and shall not be dominated by any single interest category. Dominance means a position of exercise of dominant authority, leadership, or influence by reason of superior leverage, strength, or representation to the exclusion of fair and equitable consideration of other viewpoints."

In summary, the American Reusable Textile Association (ARTA) requests that our organization, along with others within the laundering sector be included in any hearings, discussions, deliberations, or study groups concerning the issue of contaminated work clothing.

We believe that a suitable alternative to employees wearing vocational clothing home is to offer workers the opportunity of changing into personal clothing prior to leaving the workplace.

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Based on years of experience, we believe that any hazards to laundry workers, from soiled clothing, can be managed properly, thereby avoiding problems to these workers. Experience also shows that many garment contaminants can be properly removed during the laundering process.

We also urge that the National Institute of Occupational Safety and Health take into consideration the many environmental challenges which single use disposable products pose to our society. The Agency for Toxic Substances and Disease Registry (ATSDR) has stated that "the most effective way to deal with the issue, (of millions of tons of medical waste) is to strive to reduce the amount of waste created through recycling, reuse and reclamation to adequately manage solid waste now and in the future" (15).

Any action which might increase the need to dispose of medical, toxic, or radioactive waste, would be contrary to the principles outlined by the ATSDR and move toward the further decline in the quality of our national environment.

ARTA proposes to work with NIOSH and others toward creating viable solutions to the problems detailed in the Workers Home Contamination Study (16). We look forward to hearing from you as to how we may further contribute to this important issue.

Very truly yours,

Howard M. Zins
Vice President and Technical Director

DAZINS\NIOSH.

REFERENCES USED IN MAY 29 LETTER

TO DR. LINDA ROSENSTOCK

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3. Federal Register, 40CFR Part 60, "Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Medical Waste Incinerators". Proposed Standards and Guidelines, and Notice of Public Hearing, February 27, 1995 pp. 10654-10691.
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9. Federal Register, 29 CFR Part 1910.1030, "Occupational Exposure to Blood borne Pathogens: Final Rule", December 6, 1991, pp. 64004-64182.
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13. U. S. Department of Health And Human Services, loc. cit.
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