

## Standard Interpretations / Employee safety and the laundering of contaminated clothing.

▪ **Standard Number:** 1910.1025

OSHA requirements are set by statute, standards and regulations. Our interpretation letters explain these requirements and how they apply to particular circumstances, but they cannot create additional employer obligations. This letter constitutes OSHA's interpretation of the requirements discussed. Note that our enforcement guidance may be affected by changes to OSHA rules. Also, from time to time we update our guidance in response to new information. To keep apprised of such developments, you can consult OSHA's website at <http://www.osha.gov>.

April 1, 1997

Mr. Daniel B. Walker, Jr.  
President  
UNI SERVE, Inc.  
55th Street & A.V.R.R.  
Pittsburgh, Pennsylvania 15201

Dear Mr. Walker:

This is in response to your letter of February 24, concerning employee safety and the laundering of contaminated clothing. Your letter addresses several environmental issues, which we suggest you address to the Pennsylvania Department of Environmental Resources. We can comment on those items that are in the Occupational Safety Health Administration's (OSHA) jurisdiction, namely, those issues related to employee safety.

Several of the issues you mentioned, discuss situations for which OSHA already has standards. First, an employee **should not** take contaminated workclothes home to be washed. The employer is required to provide for the cleaning of protective work clothing per 29 CFR 1910.1025(g)(2)(ii). Second, when an employer opts to use a commercial laundry to clean protective work clothes contaminated with lead, the employer is required to inform the laundry in writing of the potentially harmful effects of exposure to lead per 1910.1025(g)(2)(vi). Containers of contaminated clothing must also be labeled with: CAUTION: Clothing contaminated with lead. Do not remove dust by blowing or shaking. Dispose of contaminated wash water in accordance with applicable local, state, or federal regulations.

The laundry and the workers handling containers marked with such a hazard warning should be aware that they are handling lead-contaminated clothing. Laundry workers would be covered under the General Industry standard 1910.1025 and would be required to be trained under paragraph (I).

OSHA has conducted many inspections of laundries during our history and we have not found an exposure to lead above the action level. OSHA has found similar violations to some of those you had observed at other laundries. Employees sometimes have not been trained and initial exposure determinations have not been performed. Medical surveillance has not been required, however, since the action level was not exceeded.

I feel that the situation you have described does not warrant an Emergency Temporary Standard or a Special Emphasis Program. The controls you have put in place to ensure the exposure levels of your employees are commendable and appear to much more stringent than required by our standards. I commend your efforts to create a safer and healthier workplace.

Thank you for your interests in safety and health.

Sincerely,

John B. Miles, Jr., Director  
Directorate of Compliance Programs

February 24, 1997

Mr. Gregory Watchman  
Acting Assistant Secretary  
U.S. Department of Labor - OSHA  
200 Constitution Avenue N.W.  
Washington, DC 20210

Subject: Laundering of Contaminated Clothing Lead and Asbestos

Dear Mr. Watchman:

We are writing to your office to bring attention to a very serious environmental problem. The situation involves the improper and inadequate procedures/methods utilized in numerous industrial and commercial laundry facilities providing for the decontamination of protective work clothing. We have known for several years that these activities pose a significant exposure risk for laundry employees performing these functions, and have found that in most, if not all cases, the employer has not implemented fundamental training and medical surveillance programs to adequately monitor and protect workers. Furthermore, these same facilities are providing services to the general public with the same equipment and facilities used to decontaminate lead and asbestos contaminated clothing. We have approached the Department of Labor - OSHA, in the past, presented our facts, and have been very disappointed with the outcome.

This same problem introduces other unnecessary environmental degradation conditions to our natural resources. Untreated water and air discharged from these facilities can pollute air and streams. Sample collection and analytical results could identify the need for pre-treatment methods prior to discharge and could eliminate the possibility of these occurrences, if mandated by an appropriate Standard.

Now, we will attempt to supply a brief synopsis of the actual supporting facts and regulations which justify our efforts and explain how the standards have created a potential hazard to the general public and unknowing employees.

## **Standards**

In June 1993, the U.S. Department of Labor - OSHA enacted 29 CFR 1926.62. This standard regulates exposure to lead in the construction industry. The act requires employers to provide protective clothing to employees who may be exposed to lead and requires initial determination of exposure for any lead related activity. It also outlines procedures for notification to laundries who may provide services for the contractor. Subsequently, in December 1993, the U.S. Department of Labor issued CPL 2-2.58 (See Attachment 1). Part (g)(1) of this directive clearly states that disposable protective work clothing that rips or falls apart easily would not be considered appropriate work clothing. In doing so, the Department has created a new stream of hazardous material by requiring employers to utilize cloth type protective clothing in lieu of disposables. Typically, this type of waste is disposed along with the other waste generated from the project site in an approved disposal facility. After the release of CPL 2-2.58, employers have chosen to exercise their options and have had their protective work clothing laundered in some fashion. The problem occurs when these garments are sent to unqualified providers/laundries who employ workers that are not properly trained or informed to the hazards associated with lead or asbestos exposure. In addition, employers may launder their protective work clothing at a coin operated public laundry or simply take them home for decontamination. Studies have shown that work clothing, when brought home, has caused lead and asbestos contaminated dust, and can infect family members causing illness and even death. A Standard should be written and require specific means and methods for the proper decontamination of reusable protective work clothing. (See Attachment 2 - Uni-Serve QA/QC, Attachment 3 - Uni-Serve Health and Safety Program and Attachment 4 - Respirator Program).

### **Federal Acquisition, Recycling, and Waste Prevention Executive Order 12873, Dated, October 20, 1993**

This order basically commits the Federal Government through the Office of Federal Procurement Policy, (OFPP) to make more efficient use of our natural resources by maximizing recycling and preventing waste whenever possible. It also states that the Federal Government should, through cost-effective waste prevention and recycling activities, work to conserve disposal capacity, and serve as a model in this regard for private and other institutions. In addition, the order mandates the use of recycled and environmentally preferable products and services procured by the Federal Government which could spur private sector development of new technologies and the use of such products, thereby creating business and employment opportunities and enhancing regional and local economies, including the national economy (See Attachment 5).

We understand Federal Agencies such as the Department of Labor must incorporate these Executive Orders into the appropriate Standards as they are written.

### **Technology, Research and Development**

Our research information/documents show that the clothing used in abrasive blasting of lead based paint when placed into the required disposal bags contain high levels of lead that exceed 5 parts per million, or are deemed hazardous waste by EPA standards. In addition, analytical results have indicated that the effluent water levels prior to pre-treatment are in excess of 13.2 mg/l and the effluent sludge are above 5 ppm (See Attachment 6 - Analytical Testing Info). We have sampled the laundry sludge in accordance with EPA regulations and have properly disposed of the material as hazardous waste (See Attachment 7 - Hazardous Waste Manifest). Furthermore, our test results indicate our effluent water after pre-treatment are well under the permissible limits. The reusable protective clothing at our facility are randomly tested after decontamination by an analytical method developed by R.J. Lee (See Attachment 7 - RJ Lee Protocol, Strip Sample Method). These tests show that the uniforms have been decontaminated in accordance with our standard of 500 ug/m(3). In light of the information presented herein, we believe the handling of the hazardous lead and asbestos waste in laundries from beginning to end must be performed in compliance with OSHA regulations; i.e. Written Work Plan, QA/QC, Health & Safety Program and a Written Respirator Program.

Effective means and methods currently exist that thoroughly remove contaminants from protective work clothing for recycling/reuse purposes. We believe that generators of contaminated protective clothing must complete a Chain-Of-Custody form to trace these contaminated materials from the point of generation to the treatment/laundry

facility. Laundries providing these services should extract and segregate these constituents from the clothing without dilution and properly dispose of by-products as hazardous waste. In addition, the laundry provider should have analytical procedures in place to verify that the decontamination process was effective and certify through random analytical testing that the uniforms have been thoroughly decontaminated.

If the recycling and decontamination procedures are properly performed, these techniques could completely remove disposable protective work clothing from the waste stream and eliminate the need for disposal. We also provide a complete line of recyclable protective work clothing for asbestos and lead abatement activities which provide a far superior level of protection to workers as compared to disposables. We would like to expand our decontamination/extraction services into other fields if we were properly supported by the Federal Government.

In order to comply with the spirit of the executive order, and to address the specifics needed to make enforceable the OSHA Regulations, the following may be helpful in drafting an emergency order and in the ensuing rulemaking. Current technology has established that it is possible to meet the existing standards for both the EPA and OSHA levels of compliance. As an example, we have enclosed the reference numbers from our laundry in which we measure the levels of constituents in water, air and uniforms after decontamination (See Attachment 8 Table 1).

In addition to the duties to promulgate and enforce standards, OSHA has special duties under the Contract Work Hours and Safety Standards Act of 1962 and subsequent amendments. OSHA has a duty to review Federal construction procurement to assure that workers are protected. We believe that these duties extend to the issues described herein. Therefore, we respectfully request that OSHA issue an Emergency Temporary Standard, or barring such action, as a very minimum institute a special emphasis program to ensure that workers are adequately protected in the wearing and/or handling of contaminated clothing and further, that this action includes a review of all Federal procurement of services that involve contact with lead or asbestos, to ensure that this procurement is consistent with the best safety and health practices available.

Respectfully submitted,

UNI-SERVE, INC.

Daniel B. Walker, Jr.

President

## UNITED STATES DEPARTMENT OF LABOR

Occupational Safety & Health Administration

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Washington, DC 20210

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TTY

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**FEDERAL GOVERNMENT**

White House