

**JUN 25 1997**

**Mr. Steve Polston  
General Manager  
Lockheed Martin Utility Services, Inc.  
Post Office Box 1410  
Paducah, Kentucky 42002-1410**

**Dear Mr. Polston:**

**This letter is in response to your request to the Occupational Safety and Health Administration (OSHA) for a permanent variance from 29 CFR 1910.134(b)(11), which requires that respirators selected for employee use be jointly approved by the Mine Safety and Health Administration (MSHA) and the National Institute for Occupational Safety and Health (NIOSH). You are requesting that OSHA issue a permanent variance allowing the employees of Lockheed Martin Utility Services, Inc. (Lockheed) to use an airline supplied-air suit (the "airsuit") while performing preventive and corrective maintenance operations at a gaseous diffusion plant (GDP). The GDP, which is located in Paducah, Kentucky, is currently owned by the Federal Department of Energy (DOE) and leased by DOE to the United States Enrichment Corporation (USEC); Lockheed performs maintenance operations in the Paducah GDP under contract to USEC. Based on an assessment of your variance request conducted jointly by OSHA and DOE, we have determined that the airsuit is exempt from the requirements of 29 CFR 1910.134(b)(11).**

**According to your letter, employees perform maintenance operations on the piping systems in which gaseous diffusion takes place. During the maintenance operations, employees are exposed to two hazards associated with the hydrolysis products of gas diffusion that require use of the airsuit—uranium hexafluoride and extreme heat and humidity. Under normal use conditions, air flows continuously through the airsuit at a rate of 19 to 21 cfm from a venturi in the hood of the airsuit and exits through cuff openings at the wrists and ankles. The high air-flow rate prevents uranium hexafluoride from entering the airsuit, and, in addition, serves to cool employees to safe and comfortable temperature and humidity levels.**

**In discussions held on April 4, 1996 between OSHA and the National Institute for Occupational Safety and Health (NIOSH), the NIOSH representative stated that NIOSH could not certify the airsuit for respirator use because no certification criteria are available for testing an airsuit. On November 20, 1996, OSHA met**

with Ms. Jacqueline Rogers from DOE and Mr. Bruce Reinert from Los Alamos National Laboratory. At this meeting, Ms. Rogers and Mr. Reinert discussed the history of the airsuit and the DOE Respiratory Acceptance Program. From this discussion, we learned that the airsuit was developed and used primarily to protect employees from exposure to radiological hazards. Also, the airsuit serves as a cooling device when used under conditions in which adverse thermal conditions (i.e., high heat and humidity levels) are present with the radiological hazards.

OSHA and DOE entered into a memorandum of understanding (DOE-OSHA MOU) on December 21, 1994 in response to the Energy Bill of 1992. The DOE-OSHA MOU delineates each agency's responsibility for assuring employee protection at the GDP's owned by DOE and leased by the USEC. Under the DOE-OSHA MOU, DOE is responsible for preventing employee exposure to health hazards involving radiological hazards, as well as radiation hazards to the general public and the environment. In this regard, DOE's authority is contained in the Regulatory Oversight Agreement between DOE and USEC, dated July 1, 1993. OSHA's responsibility under the DOE-OSHA MOU is to enforce health and safety standards that involve employee exposure to non-radiological hazards. For situations in which both radiological and non-radiological hazards are present, both agencies are to coordinate their efforts.

Based on information provided in your variance request and at the November 20th meeting between OSHA and DOE officials, as well as the provisions of the DOE-OSHA MOU, OSHA has determined that the airsuit used at the Paducah GDP by Lockheed employees protects them from exposure to both radiological (uranium hexafluoride) and non-radiological (heat and humidity) hazards. While the airsuit may be designed and used principally to prevent employees from being exposed to radiological hazards, the thermal safety and comfort of the employees is, nonetheless, an important function of the airsuit.

As the above discussion demonstrates, the respiratory protection characteristics of the airsuit are a consequence of preventing employee exposure to radiological hazards. OSHA, therefore, concludes that the DOE-OSHA MOU mandates that the airsuit be regulated by DOE to ensure adequate employee protection against such hazards. Consequently, the airsuit is exempted from the requirements of 29 CFR 1910.134(b)(11), and no OSHA variance is required for the airsuit to be used under the radiological conditions described in your variance request. OSHA, however, reserves its authority under the DOE-OSHA MOU to regulate the airsuit in accordance with the requirements of the personal protective equipment standard at 29 CFR 1910.132; this standard applies to the use of the airsuit to protect employees against the high levels of heat and humidity imposed by their workplace

conditions. Since no citation was issued to Lockheed for violating 29 CFR 1910.132, OSHA assumes that the airtuit meets the provisions of that standard.

Under the USEC Privatization Act of 1996, the Nuclear Regulatory Commission (NRC) will assume, or already has assumed, regulatory jurisdiction oat the GDPs. In anticipation of this transfer of jurisdiction, OSHA and NRC signed a joint NRC-OSHA MOU on July 26, 1996. The joint NRC-OSHA MOU contains provisions similar to the DOE-OSHA MOU. While the NRC-OSHA MOU does not affect OSHA's position regarding the conventional (i.e., heat and humidity) health hazard discussed in this letter, Lockheed may want to review the issue of the radiological health hazard with representatives of the NRC after the transfer of jurisdiction takes place.

No further action will be taken on your request for a variance. if you have any questions, please contact Ms. Juanita Jones at (202-219-7193, ext, 113.

Sincerely,

Signed

Steven F, Witt  
Director  
Directorate of Technical Support