

Concept Clearance

Branch: Worker Education and Training Branch

Council Period: 201810

Concept Title: HAZMAT Training at Department of Energy (DOE) Nuclear Weapons Complex (UH4)

The National Defense Authorization Act for fiscal years 1992 and 1993 (42 USC 7274(d)) authorized the Secretary of Energy in section 3131(a)(1)(A)-(B) to make awards: "to provide training and education to persons who are or may be engaged in hazardous substance response or emergency at Department of Energy nuclear weapons facilities; and to develop response curricula for such training and education." The Secretary was further authorized in Section 3131(a)(2)(A)-(B) to make the training awards to non-profit organizations demonstrating capabilities in: "implementing and conducting effective training and education programs relating to the general health and safety of workers; and identifying, and involving in training, groups of workers whose duties include hazardous substance response or emergency response." Under Section 126(g) of Superfund Amendments and Reauthorization Act (SARA), NIEHS developed and administers a Worker Training Program (WTP) HAZMAT Training at DOE Nuclear Weapons Complex.

During 1992, the DOE evaluated this program developed by NIEHS for suitability of adaptation to its own program and training needs and determined that the program was suitable. In an effort to rapidly move to the implementation stage and to leverage program resources, DOE entered into an agreement with NIEHS to award and administer the grants and to adapt its existing program to meet the needs of the DOE nuclear weapons complex. Protecting worker health and safety through the delivery of safety and health training is a priority of the Secretary of Energy and is a primary goal of the Office of Environmental Management (EM). As the DOE mission has shifted from weapons production to environmental restoration, the site worker will be exposed to new operations and hazards while conducting restoration activities. To provide protection to workers' health and safety, all workers at DOE sites engaged or potentially engaged in environmental restoration activities, including hazardous substance response or emergency response, are required by CERCLA and respective DOE Orders to meet the requirements of the Occupational Safety and Health Administration's (OSHA) regulations 20 CFR 1910.120 and the EPA Hazardous Waste Operations and Emergency Response (HAZWOPER) training requirements (40 CFR 300.150).

The NIEHS/DOE program represents a large pool of trained, certified workers who respond in case of accidental or deliberate radiological events. While it was never imagined that this program would result in a capacity to respond to such events, this is an actual benefit and a national security asset. NIEHS WTP has developed a mechanism for identifying and mobilizing these workers.

Since receiving concept clearance from the National Advisory Environmental Health Sciences Council (NAEHSC) at its May 1994 meeting, a competitive Request for Applications has been developed every five years by NIEHS Worker Education and Training Branch (WETB) staff in consultation with DOE. Successful applicants are required to re-apply for a 5-year cycle and to demonstrate adequate progress each year in reaching the goals of their application. In February 2014, the Council recommended that the program continue for the next five years. During 2015-2019, WTP cooperative agreement funding supported 7 consortia. Since 1994, over **594,432** workers have received training in **41,205** classes resulting in **7,833,327** contact hours of training. In 2016-2017: **32,202** workers received 389,768 contact hours of training in 2,066 courses at or around 40 DOE sites. Of the 32,202 workers trained during this period, the highest numbers were in Site Worker Refresher and Respiratory Protection courses. Of the 389,786 contact hours, the highest numbers were in Site Worker Refresher and Site Worker courses. These three courses are critical for DOE worker and site safety and ensuring worker readiness for employment.

The goal of the NIEHS/DOE Nuclear Worker Training Program (WTP) is to provide high quality training to ensure that DOE site workers are prepared to work safely in hazardous environments, and that workers have sufficient knowledge to identify hazardous situations and to take appropriate actions to protect themselves, fellow workers, and the environment. To accomplish this, NIEHS funds programs to deliver both site-specific and trade-specific training to address complicated DOE sites, featuring a combination of nuclear, industrial, demolition, and construction activities.

Major program objectives for the future of the DOE/NIEHS WTP include:

- Establish DOE and contractor safety and health training programs with best practices by drawing on the skills and knowledge of experienced workers on the job.
- Facilitate and promote a culture of continuous learning, integrated safety management, safety culture, and improving task readiness within the DOE complex.
- Act as a prime source for new training methodologies, innovative techniques, and lessons learned for all DOE operations through partnering with site contractors, regulatory personnel and other stakeholders.

- Reduce safety and health training costs through standardization, centralized partner development, and minimizing necessary travel and expenses.
- Reduce redundancy within the DOE complex by utilizing existing quality, safety and health training programs located in partner organizations and integrating best-in-class technical training program capabilities.
- Maximize the use of advanced training technology supported learning tools where available and appropriate for effective delivery and evaluation while integrating web-based, virtual and computer-based methods with traditional hands-on and classroom centered learning.

The program will use the cooperative agreement mechanism UH4 entitled "Hazmat Training at DOE Nuclear Weapons Complex (NIEHS)" and described as "To develop, implement, and evaluate programs to train workers who are or may be engaged in activities related to hazardous waste removal, containment, or emergency response."

As a result of the experience gained over thirty years of operating the WTP under the statutory authority of Section 126(g) of SARA, NIEHS has determined that the cooperative agreement should continue to be the most appropriate assistance instrument for the following reasons:

- a. the need to assure national coordination and to avoid duplication of efforts and overlap in the DOE program development and delivery; NIEHS will promote national coordination among awardees with NIEHS Program staff and DOE staff and share reviews of each awardees' program evaluation for use in future training activities as well as prepare annual report summarizing training accomplishments by awardees;
- b. the need to facilitate the ongoing exchange of relevant scientific and technical information between awardees and the Institute; to promote effective exchange of information, NIEHS will convene two topical technical workshops on an annual basis, as well as maintain a National Clearinghouse for Worker Safety and Health Training for Hazardous Materials, Waste Operations and Emergency Response;
- c. the need to ensure regulatory compliance with applicable federal worker health and safety requirements and national consistency in the delivery of training curricula; NIEHS staff will have programmatic involvement in the review of training manuals and curricula materials before their use in training activities by awardees, and conduct regular site reviews by program staff to ensure compliance with federal standards and consistent use of training materials and presentation of curricula;
- d. the mutual interest of awardees and the Institute in developing peer-reviewed, high quality model training programs for hazardous waste workers and emergency responders; the process for developing model programs will include awardee development of evaluations that assess trainee learning and use of training at the worksite, effective teaching techniques and pedagogical approaches, and a consensus between awardees and the Institute regarding adequate minimum criteria for effective worker training programs;

The use of a cooperative agreement as an assistance instrument with substantial programmatic involvement by NIEHS staff is required to assure adequate national coordination of a diverse training program focused on workers at DOE sites engaged or potentially engaged in environmental restoration activities. The role of the NIEHS will be to facilitate, not to direct, the development of a high quality national worker safety and health training resource.

The substantial programmatic involvement by NIEHS staff has been an important factor in the continuing success of the DOE training program. A Program Official/Coordinator designated by the Director, NIEHS for the Worker Training Program provides substantial programmatic involvement and facilitates administration and coordination of the cooperative agreements under this program. The NIEHS Program Official/Coordinator manages activities of mutual interest and benefit to awardees and the Institute. The primary objective of the Worker Education and Training Program will be to stimulate collaborative work between NIEHS and the awardees in the creation of model worker safety and health training programs.

Ongoing participation by NIEHS staff has assured a high level of quality in training development, a robust exchange of scientific and technical information, and the opportunity for solid partnerships with DOE divisions.

Proposed Timeline for DOE NIEHS HAZMAT Training:

Council Concept Clearance: September 2018

RFA Release Date: June/July 2019

Application Due Dates: November 2019

Peer Review Dates: February/March 2020

Council Review Dates: May/June 2020

Earliest Anticipated Start Date: September 2020