



EEOICPA Program Memorandum

Date: February 20, 2015

To: All staff

From: Policy Branch

Re: Exposure levels at DOE facilities beginning in 1995

Using the body of available industrial knowledge concerning the work processes affiliated with the production, manufacture and testing of atomic weapons, the Division of Energy Employees Occupational Illness Compensation (DEEOIC) is responsible for making informed judgments with regard to the biological or chemical materials to which a covered Part E employee had credible exposure by way of physical contact or inhalation. For the purpose of program administration, the term "credible" means that a source of evidence is sufficiently reliable or compelling so as to offer probative information regarding the nature, extent and duration of an employee's exposure to a toxic substance.

DEEOIC uses information from a variety of sources to make findings of exposure, including evidence presented in the case file of an employee seeking benefits, data outputs from the Site Exposure Matrices, opinions of Industrial Hygienists or other occupational health experts, and data supplied by Department of Energy (DOE) or its contractors regarding the operational use of materials at covered DOE facilities.

The publication of EEOICPA Circular No. 15-06 (December 17, 2014) is based on DOE's issuance of Order 440.1, "Worker Protection Management for DOE Federal and Contractor Employees," in 1995. DOE and its predecessors, including the Energy Research and Development Administration (ERDA), the Atomic Energy Commission (AEC) and even the Manhattan Engineer District (MED), undertook a progression of efforts to protect the health and safety of workers in the weapons complex over time. A brief examination of this history starts on August 20, 1962 with the issuance of AEC Order 0550, "Standards for Health, Safety and Fire Protection," which states:

Basic standards for the protection of health from exposure to toxic materials are established and published annually by the American Conference of Governmental Industrial Hygienists. These standards are specified in the recommendations for threshold limit values for the control of exposure of individuals to toxic material and are in the Hygiene Guide Series.

By 1973, this section of the Order was expanded to specifically delineate prescribed standards and recommended standards, and both sections contain references to respiratory protection as well. Chapter 0506, "Occupational Safety and Health Program for ERDA GOCO Contractor employees," approved on January 5, 1977, states that standards at ERDA government-owned, contractor-operated (GOCO) facilities were to be "at least as effective as those promulgated under the Occupational Safety and Health Act of 1970." By this time the regulations were becoming longer, more detailed and they contained the earliest references to compliance inspections. DOE 5480.1A, issued August 13, 1981, devotes Chapter 10 to the Industrial Hygiene program, and states the purpose as "This Chapter establishes the requirement and guidance for maintaining an effective industrial hygiene program." This Order was updated on September 23, 1986 by DOE 5480.1B, which adds further requirements.

DOE then issued Order 440.1 in 1995. The Order established a standardized Occupational Safety and Health protocol for all DOE federal and contractor employees. The intent of the Order was multifaceted but included several goals, including the implementation of a written worker protection plan that provided for a place of employment free from recognized hazards that caused or likely could cause death or serious physical harm. The Order also established a series of guidelines that fostered enhanced workplace safety practices, including more robust monitoring of potential workplace chemical, physical, biological or ergonomic hazards. It also included guidance for employees to stop work in any instance of employee exposure to imminent danger situations or other serious hazards. DOE subsequently published updated Orders (440.1A & 440.1B) to further enhance and strengthen the requirements for protecting worker safety and health.

For the following reasons, DEEOIC chose to base EEOICPA Circular No. 15-06 on the 1995 Order 440.1 instead of the earlier Orders. First, DEEOIC recognizes that implementation of industrial hygiene standards by DOE and its predecessors was, at times, lacking. It also recognizes that with each more rigorous standard, there would have been a time lag between issuance and implementation. However, a number of things are apparent starting in the late 1980s that make the 1995 date the best one for the Circular. It was at that time that DOE began a series of enforcement actions known as "Tiger Teams." These were teams from DOE headquarters who visited the DOE sites performing health and safety audits. These audits were possibly the first health and safety audits at DOE sites that were seen as having real consequences for non-compliance.

In addition to the Tiger Teams, September 30, 1992 marked the end of underground weapons testing and with it, the operational focus of DOE shifted from nuclear weapons production to one of site closures and remediation. Large production facilities like Rocky Flats, Fernald, Mound, and other sites ceased production activities in the late 1980s and into the 1990s. Also, DEEOIC programmatic experience with claims adjudication demonstrates that the DOE industrial hygiene monitoring programs were

in place at some sites by the late 1980s, at many by the early 1990s and regularly after 1995. This demonstrates that the regulations noted above did ultimately have their intended effect: competent industrial hygiene programs and protections in place at the DOE facilities that remained after shutdown.

Therefore, it is the finding of the program that DOE implemented a significant and rigorous employee Occupational Safety and Health program with the publication of Order 440.1 after years of effort of working to improve in this area. Further, since DOE published the Order with the goal of significantly mitigating employee exposure to workplace hazards, including exposure to chemical or biological toxins, DEEOIC finds that after 1995 any exposure to a toxic substance by an employee working at a covered DOE facility occurred within existing regulatory standards and/or guidelines.

Accordingly, DEEOIC concludes that the official publication of Order 440.1, along with its subsequent iterations, represents a reliable and compelling basis for establishing the exposure guidance offered in EEOICPA Circular No. 15-06.