

Advisory Board on Toxic Substances and Worker Health, Department of Labor

Recommendation on Presumptions for Job Categories with Site-Wide Exposures to all Toxic Substances

Adopted November 5, 2020

Recommendation

The Board recommends that the Department develop and implement exposure presumptions indicating that job categories at DOE sites whose workers likely worked throughout their individual sites had potential exposure to all listed toxic substances at those facilities.

Rationale

There are a limited number of job categories at many, if not most, Department of Energy sites whose job duties routinely involve work for variable periods of time at many buildings and locations within the site where people with these job categories work. Examples of such job categories include, but are not limited to, firefighters, security guards, health physics technicians, and safety personnel. Examination of the potential exposures for some of these categories in the Site Exposures Matrices (SEM) of the Department of Labor demonstrates substantial variation in the number and type of potential exposures associated with these job titles. An easily understand example is that of security guards at the three gaseous diffusion plants in Paducah, Portsmouth and Oak Ridge. These plants were very similar, performing a singular operation (gaseous diffusion) from the 1950's to the 1980's and beyond. Yet the number and type of potential exposures for security guards at these plants vary greatly in the SEM: 10 at Oak Ridge, 29 at Paducah, and 61 at Portsmouth. Exposures of health physics technicians show similar variation.

A highly plausible explanation for this occurrence, for the particular example cited above as well as for another few job titles, is a significant level of variation in the amount and detail of documentation of exposure that has been gathered across the DOE sites over the past 75 years. This is no surprise, as the DOE sites were operated by different contractors over the decades, who frequently changed, and who were likely not provided with uniform and specific instructions on documenting exposures at the plants. The SEM is based on such documentation, which represents a principal strength. But the utility of the SEM is vulnerable to known gaps in exposure documentation, which, by virtue of the absence of information, is not obvious to users of the SEM, such as claims examiners.

Compounding this limitation, it is just plain difficult to identify a specific list of potential exposures of highly mobile workers who roam throughout the site's facilities, as needed, to do their jobs. Security guards would not have kept exposure diaries, worn air monitoring pumps, or even tracked which buildings they visited over time, much less described what occurred in those buildings or which chemicals were present. The same can be said for fire fighters, health physics or industrial hygiene technicians (and their aliases), and others.

An appropriate solution to this deficiency in information is to implement an exposure presumption for these job categories that indicates that they very likely had exposure to a very broad set of chemical agents that were used at the sites where they worked. The SEM could then be used, if at all, to identify the universe of toxic agents and diseases that are applicable to the relevant site to determine a first order applicability to the health condition that forms the basis of the claim. Alternatively, the SEM could be bypassed in favor of an industrial hygiene evaluation of the exposure information provided by the claimant and knowledge of the job category and the DOE site in question. The exact procedure would be determined by the Department, though the Board would appreciate the opportunity to provide additional input. The desired end result will reflect the recognition that, for a limited set of job categories and their aliases, there was potential for exposure to a great number of toxic substances used at the relevant site with their attendant risks of disease.