



August 12, 2024

Dr. Aaron Bowman, Chair
Advisory Board on Toxic Substances
and Worker Health
Purdue University
550 Stadium Drive – HAMP 1173A
West Lafayette, IN 47907-2051

Dear Dr. Bowman:

Thank you for the June 17, 2024, letter from the Advisory Board on Toxic Substances and Worker Health (Advisory Board or Board) requesting information from the Department of Labor (DOL) on several topics. On behalf of Acting Secretary of Labor Julie A. Su, to whom the letter was addressed, the Division of Energy Employees Occupational Illness Compensation (DEEOIC) responds to the Board's requests for information herein.

The Board requests a report on the referee reports in finalized claims of the EEOICP during the two-year period, 2022 and 2023. The report should include the number of referee reports, the types of issues addressed (causation, impairment, diagnosis, other), the specialty of the referees, and whether the referee's opinion aligns or agrees with the opinion expressed in the CMC report in the same claim.

DEEOIC has worked with its CMC contractor, QTC, to provide the requested report; however, DEEOIC does not track all the items listed above. From 2022-2023, QTC has delivered 191 referee reports, with the reports being the result of a request for a causation file review. The breakdown of provider specialty is: Allergist (1); Dermatologist (2); Endocrinologist (1); Internal Medicine (2); Nephrologist (1); Neurologist (5); Occupational Medicine (150); Oncologist (1); Otolaryngologist (1); Pulmonologist (27). Neither QTC nor DEEOIC tracks whether the referee's opinion aligns or agrees with the opinion expressed in CMC reports in the same claim.

The Board requests data on outcomes of re-review of claims that involve 3 or more borderline BeLPT results following the recent change in EEOICP policy.

DEEOIC is currently in the process of reviewing 1,153 previously denied claims for beryllium sensitivity based on the updated criteria published in its January 30, 2024, [Bulletin 24-01, Updated Criteria for Establishing Beryllium Sensitivity](#). DEEOIC has identified seven (7) previously denied claims that now likely meet the updated criteria and have been reopened to allow for acceptance. DEEOIC has also identified an additional seventeen (17) claims that require additional development; specifically, these cases do not contain evidence of three (3) borderline BeLPTs performed on blood cells over a three (3) year period, but instead have two prior borderline BeLPTs or other evidence that warrants investigation. In these cases, DEEOIC

is sending claimants a development letter advising of the updated criteria and requesting they submit the required borderline BeLPTs (if available) to satisfy the new criteria.

The Board requests information on claims for consequential conditions: number of claims (2022 and 2023); nature (disease) of condition specified by claimant to have occurred as a consequence of previous claimed condition, outcome of claim (denial versus accepted), reason for denial.

Currently, DEEOIC is only able to pull the number of claims for consequential illnesses that contain a letter decision to accept. We do not currently have a breakdown of the nature of the condition or information on denials. From 2022 to 2023, DEEOIC accepted 15,520 claims for consequential illnesses. With the upcoming introduction of the Claim for Consequential Illness Form (Form EE-1A), DEEOIC will be able to more accurately track the number of consequential claims received, as well as the claimed condition, and decision outcome.

The Board requests that future DOE site tours conducted in association with Board meetings include, to the extent possible, information about site activities that occurred from 1960 to 2000, that is, the period of time when most living former workers began employment at DOE sites.

To the extent possible, DEEOIC will work with DOE to provide site tours that are relevant to the Board. DOE takes the lead on scheduling site tours and provides guides for such tours. DEEOIC will request that site tours provide information about DOE site activities that occurred from 1960 to 2000.

The ABTSWH requests that the Program provide an update on the status and timeline of their efforts to “work with its IH contractor to develop feasible changes to IH reports to better communicate the examination of case-specific exposure data” from the March 21, 2024 DOL response memo from the program to the Board.

DEEOIC continues to work with its industrial hygiene contractor to improve the communication of case-specific exposure data within their toxic substance exposure assessments. The contractor has provided DEEOIC several examples demonstrating its inclusion of this data, and after reviewing these examples, DEEOIC submitted requested revisions. Attached for your review are three exhibits, which have been redacted of personally identifiable information (PII) and include DEEOIC’s incorporated edits. Within the document, DEEOIC has highlighted the newly proposed language in yellow.

The ABTSWH requests documentation in support of the assertion that environmental health and safety programs implemented in the mid-1990s greatly reduced the potential for workers (both DOE and contractors/subcontractors) to have had significant exposures to toxic substances at DOE facilities, and that any such work processes, events, or circumstances leading to significant exposure would likely have been identified and documented.

DEEOIC is responsible for making informed judgments regarding the biological or chemical materials to which a covered employee may have had credible exposure by applying the body of available industrial knowledge concerning the work processes affiliated with production, manufacture and testing of atomic weapons. DEEOIC uses information from a variety of sources to make findings of exposure including evidence presented by claimants, data outputs from the Site Exposure Matrices (SEM), professional knowledge of DOL Industrial Hygienists (IHs) 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.

DEEOIC IHs continue to assess exposures for the entire work history of each employee, regardless of the temporality of that employment, and use their best judgment in characterizing an employee's potential toxic substance exposure. In many case situations, the IH's apply an exposure assignment methodology that assumes a much higher level of toxic substance exposure than would have been likely encountered by DOE contractor or subcontractor employees. However, the IH's do apply judgement about the nature of operational functions that brought employees into contact with toxic substances. This includes consideration of the systemic operational changes that occurred in the mid-1990s, during which DOE established standardized Occupational Safety and Health protocols for its federal and contract employees. These changes included the implementation of worker protections and a series of guidelines that fostered enhanced workplace safety practices including more robust monitoring of potential workplace chemical, physical, biological, or ergonomic hazards. DOE also implemented more site visits during which it performed health and safety audits to minimize the likelihood of significant exposures to toxic substances by its workers. Consideration is also given to the changing dynamic of the nuclear weapons complex from one of active production to one directed more toward maintenance and remediation in the 1990s that resulted in a general reduction of significant operational employee exposure to toxic substances.

Assignment of exposure by DEEOIC IH's does not assume that an employee working after the mid-1990s worked in a completely safe occupational health environment and that significant exposure to toxic substances was impossible. However, evidence must exist to persuasively document a reasonable basis to assign significant exposure arising from a likely violation of safety protocols, or that some other reasonable basis allows for a finding that potential exposure occurred outside of a normal occupational safety and health threshold.

Listed below are weblinks to several memoranda of understanding (MOU) which support that environmental health and safety programs implemented in the mid-1990s greatly reduced the potential for workers to have had significant exposure to toxic substances at DOE facilities, and that any significant exposure would have likely been identified and documented:

- *DOE and Nuclear Regulatory Commission (NRC) Collaborative Interactions with the Occupational Safety and Health Administration (OSHA)*
- *Formalize Working Relationships* (DOE/DOL; August 28, 1992). The purpose of this MOU was to formalize the working relationship between the two Agencies with respect to contractor employees at DOE's Government-Owned Contractor-Operated (GOCO) facilities. Pursuant to section 4(b)(1) of the OSH Act, the agencies agree that DOE has occupational

safety and health regulatory authority over the working conditions of contractor employees at DOE's GOCO facilities and thus the OSH Act does not apply to those working conditions. At the same time, federal workers are covered by Executive Order 12196 and the requirements for Federal Employee Occupational Safety and Health Programs (29 CFR 1960), and OSHA may inspect their working conditions. The agencies agree that they may provide technical assistance and training to each other, among other things. Both parties agree that requests for technical assistance and/or consultation which involve a commitment of resources will require a specific Interagency Agreement between the parties covering the scope of work, timing, and reimbursement.

- *Worker Protection at NRC-licensed Facilities.* (OSHA/NRC; October 21, 1988; Revised September 6, 2013). The purpose of this MOU between NRC and OSHA was to define the general areas of responsibility of each agency; to describe generally the efforts of the agencies to achieve worker protection at facilities licensed by the NRC; and to provide guidelines for coordination of interface activities between the two agencies. The MOU clarifies that, generally, NRC covers risk produced by radioactive materials, chemical risk produced by radioactive materials, and plant conditions which affect the safety of radioactive materials. By contrast, OSHA covers plant conditions which result in occupational risk, but do not affect the safety of licensed materials. Each agency is expected to bring safety concerns it observes within the purview of the other agency to the attention of that agency.
- *Gaseous Diffusion Plants.* (OSHA/NRC; August 1, 1996). The United States Enrichment Corporation (USEC) Privatization Act provides for the establishment of a private corporation to conduct uranium gaseous diffusion. The sole operating gaseous diffusion plant is located in Paducah, Kentucky. Further, the Act provides that the corporation is subject to OSHA authority. The Corporation is also obligated to comply with NRC radiological hazard standards. OSHA and NRC were required to enter into an MOU to define the exercise of their respective authorities over occupational safety and health at the plant. As stated in the document, its purpose is to delineate the general areas of responsibility of each agency; to describe generally the efforts of the agencies to achieve worker protection; and to provide guidelines for the coordination of interface activities between the two agencies. The MOU clarifies that NRC covers radiological hazards and any other hazards that may affect radiological safety at the facility; OSHA covers non-radiological hazards. Each agency is required to bring hazards covered by the other agency which it discovers to the attention of the other agency.

The Board notes and appreciates the Department's prior provision of the reference list for its decision-making in its noise- and solvent-related hearing loss policy in 2017. The Board requests any additional references that the Department has used since 2017 on scientific or medical aspects of its decision-making on hearing loss claims.

DEEOIC has made no changes to its decision-making process on hearing loss claims since 2017. However, since that time, DEEOIC has continued to review scientific literature related to the subject to ensure our policy aligns with current scientific consensus. Below are links to published scientific references reviewed since 2017 supporting DEEOIC's existing hearing loss criteria:

- Current Diagnosis & Treatment: Occupational & Environmental Medicine, 6th Edition, Solvents (Chapter 31); Joseph Ladou & Robert Harrison (eds.) 2021
- Association of Organic Solvent and Occupational Noise on Hearing Loss and Tinnitus Among Adults in the U.S., 1999-2004; Staudt Am, Whitworth KW, Chien LC et al., Int Arch Occup Envir Health April 92(3):403-413, 2019, PMID 30806784
- Effects of Coexposure to Noise and Mixture of Toluene, Ethylbenzene, Xylene, and Styrene (TEXS) on Hearing Loss in Petrochemical Workers of Southern China; Zhang Y, Liu Y, Li Z, et al., Envir Sci Pollut Res Int March 30(11):31620-31630, 2023, PMID 36449247
- Association Between Blood Volatile Organic Aromatic Compound Concentrations and Hearing Loss in US Adults; Wang S, Luo J, Zhang F, et al., BMC Public Health Feb 24(1):623, 2024, PMID 38413886
- Coexposure to Solvents and Noise as a Risk Factor for Hearing Loss in Agricultural Workers; Farfalla AA, Beseler C, Achutan C., J Occ Envir Med Sep 64(9):754-760, 2022, PMID 35703294
- Temporary and Permanent Auditory Effects Associated with Occupational Coexposure to Low Levels of Noise and Solvents; Bohn V, Morata T, Roggia S, et al., Int J Envir Res Public Health Aug 19(16):9894, 2022, PMID 36011533
- Audiometric Findings of Printing Press Workers Exposed to Noise and Organic Solvents; Cobello-Lopez A, Chavez-Gomez N, Torres-Valenzuela A, et al., Int J Audiol Jan 60(1):8-15, 2021, PMID 32731779
- Preventive Hearing Tests in Workers Exposed to Noise and Organic Solvents; Sliwinska-Kowalska M., Med Pr July 71(4):493-505, 2020, PMID 32667291
- The Combined Effect of Noise and Solvent Exposure on Hearing Loss in the Tire Factory Workers; Saraei M, Omidi R, Aminiano O., Indian J Otolaryngol Head Neck Surg Dec 74(Suppl 3):3887-3892, 2022, PMID 36742491
- Pure Tone Audiometry Evaluation Method Effectiveness in Detecting Hearing Changes Due to Workplace Ototoxicant Continuous Noise, and Impulse Noise Exposures; Blair M, Slagley J, Schaal NC, Ear Hear Aug 43(4):1291-1299, 2022, PMID 34860718
- Effect of Noise and Ototoxicants on Developing Standard Threshold Shifts at a U.S. Air Force Depot Level Maintenance Facility; Blair M, Slagley J, Schaal NC, J Occ Envir Hyg July 18(7):323-333, 2021, PMID 34100693

On behalf of DEEOIC and the communities we serve, I look forward to the Board's continued efforts.

Sincerely,

John Vance
Branch Chief
Branch of Policy, Regulations, and Procedures
DEEOIC

Encl: Industrial Hygiene Report Examples (3)