ABTSWH Information Request
Date of Request: April 27, 2022

1. **Delineation of Requested Data\information:** As specifically as possible, please explain exactly what specific data or case characteristics the Board is requesting (in order to assure the Program provides accurate and timely information) Please complete one form for each unique data or case request and which Board sub-group will be reviewing the information:

   We note that in our review of a number of claims that authors of the industrial hygiene reports conclude that there is no evidence that the claimant was exposed to levels of cited toxins that exceeded regulatory limits. There are also estimates of the frequency and duration of likely claimant exposures.

   We request clarification and detail regarding these conclusions prior to the May 10-11, 2022 Board meeting and, if possible, live participation of a National Office industrial hygienist at the Board meeting.

   1. What are the regulatory limits that are being cited?

      Program Response: Regarding workplace regulatory standards, the Department of Energy (DOE) historically has not adhered to the Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits or PELs but has followed the lower (in almost all cases) American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value-Time Weighted Average levels (TLV-TWA). The 2021 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices document, defines a TLV-TWA as: "The TWA concentration for a conventional 8-hour workday and a 40-hour workweek, to which it is believed that nearly all workers may be repeatedly exposed, day after day, for a working lifetime without adverse effects."

   2. Have the cited regulatory limits changed over time? If so, how?

      Program Response: OSHA PELs, or permissible exposure limits are considered legal "regulatory limits." The same is not true for ACGIH TLV-TWAs. Historically, the ACGIH TLV-TWAs have been lower, or more conservative, than the OSHA PELs. The ACGIH is a scientific organization and not a "standards-setting" body. As a scientific organization/association, the ACGIH is not subject to the rule-making requirements that apply to OSHA. This largely accounts for the ACGIH being more restrictive as well as up to date regarding the science relative to the numerous toxic agents likely encountered in the workplace. Additional information about the organization and its publications including annual TLVs and Biological Exposure Indices (BEIs) are available online https://www.acgih.org/.

      The DOE, as well as most federal agencies and reputable businesses, adopt the TLVs-TWAs by reference when evaluating workplace exposures. Both the ACGIH TLVs-

TWAs and the OSHA PELs have changed for various toxic substances over the years. Since ACGIH's incorporation in 1939, as more research data has become available, many TLVs-TWAs have been lowered to further restrict levels of exposure to different toxic agents. Similarly, OSHA's PELs have changed since they were implemented. DOE typically used the most protective exposure levels available.

3. In evaluating claims, are the contemporaneous regulatory limits that apply during the various years of the claimant's work tenure at a DOE facility used?

   Program Response: The current regulatory limits are considered during the Industrial Hygiene (IH) reviews. Limits have historically become more restrictive over time, so by informing reviews using current standards, exposure assessments outcomes will generally result in a more claimant-favorable outcome. In the absence of evidence to the contrary, after the mid-1990s DOE used and continues to utilize, the most protective exposure levels at the time of the monitoring (again these are typically the ACGIH TLVs-TWAs).

4. If state regulatory standards are more stringent than the DOE-based regulatory standards, are they ever used in claims evaluations if exposure occurred in the given state?

   Program Response: No.

5. What constitutes the various types of evidence that demonstrate that regulatory limits have been exceeded?

   Program Response: For post mid-1990 claim situations, the principal source of such data would be employer investigative reports communicating exposure incidents or events that may have placed employees in an exposure dynamic that was recognized as outside of accepted occupational safety and health standards. This information will generally be presented within the employer records supplied by the DOE including any specific monitoring data collected. Input by the claimant in an Occupational Questionnaire or through other knowledgeable individuals may also provide information that convinces the reviewing Industrial Hygienist that an exposure above regulatory limits may have occurred.

6. In general, how frequently are industrial hygiene workplace sampling results (air, surface, bulk, other) available for use in assessment of whether regulatory standards have been exceeded in the claims' industrial hygiene reports?

   Program Response: Prior to the 1990s, it is uncommon to obtain non-radiological industrial hygiene sampling data. After the mid-1990s, it is infrequent, but more common to find industrial hygiene monitoring data. When exposure sampling data is available it was generally associated with an activity or event that posed a safety and health risk. Sampling analysis was then used to determine the scope of potential exposure and recommendation(s) for mitigation. In the absence of any incidents or circumstances that would warrant investigation by occupational health and safety experts, no employer generated sampling data are usually available. It is also more common after the mid-1990s to find recurring employer sponsored questionaries and health surveys seeking employee input on any potential exposure or work situations that the employee considered a potential safety and health concern. Oftentimes, the information collected provides no indication of any work activity that the employee considered hazardous.

   Some facilities, such as the Savannah River Site and the Rocky Flats Plant, provide substantially more comprehensive industrial hygiene data on employee workplace exposure. These sites provide relatively robust analyses of an employee's specific work activities and potential employee contact with various toxic materials. The data provided by these sites are relied on heavily to inform DEEOIC IH toxic substance exposure characterizations. Most of the covered facilities under Part E do not provide similar industrial hygiene data.

7. If no evidence concerning workplace exposures is available in either direction (above or below regulatory limits) for a given claim, is the conclusion usually drawn that regulatory limits have not been exceeded?

   Program Response: Yes.

8. Please provide excerpts from the industrial hygiene reports of three de-identified claims where the report concluded that regulatory limits have been exceeded, including the evidence cited and the relevant language of the industrial hygiene report.

   Program Response: Four redacted reports are attached.

9. What are the sources of information for the statements in many industrial hygiene reports relating to the frequency, intensity, and duration of claimant exposures?

   Program Response: DEEOIC IHs rely on their credentialed, subject matter expertise and professional experience to communicate their judgment on the extent of toxic

substance exposure encountered by employees. Moreover, many DEEOIC IHs have substantial experience or knowledge of DOE-related operations and work processes. In the absence of affirmative sampling data upon which to accurately gauge employee-specific exposure levels, it is necessary to apply reasonable discretion to assign likely levels of exposure to toxins that an employee encountered during their covered employment. To form exposure judgments in employee-specific situations, DEEOIC IHs undertake a careful review of the agents in question (including their associated properties) and the unique factors of the employee's work history (facility worked, labor category, work processes, location of work activities). Once the IH considers this information, along with any relevant exposure data provided by DOE or the employee, exposures are classified as *likely* occurring on an occasional (i.e., weekly, biweekly and sometimes monthly) basis and/or frequent basis (i.e., daily) basis along with levels assigned as either low, moderate or high. The principal sources of data evaluated by IHs include the following:

- Employer submitted exposure data and work records
- Occupational History Questionnaire
- Employment data from the case file records including EE-3 and affidavits from knowledgeable co-workers or associates
- Site Exposure Matrix search outputs

10. Are contract medical consultants advised that health effects of selected toxins may occur at levels below contemporaneous regulatory limits?

Program Response: Contract medical consultants or claimant chosen physicians are provided a copy of any DEEOIC IH prepared toxic substance characterization including any reference to exposures that occurred within regulatory limits after the mid-1990s. DEEOIC has added language to IH reports since February 2022 that provides more context for the "within regulatory limits" phrase. See below. A physician may consider this information and apply their professional judgement in rendering his or her opinion on whether there is a relationship between a toxic substance and claimed diagnosed illness. If a physician considers an exposure, even within regulatory limits, to have been a significant factor in causing, contributing to, or aggravating an illness, so long as they provide well-rationalized justification for such an opinion, DEEOIC may accept the illness as work related.

> *Standard language added to DEEOIC IH reports pertaining to exposure within regulatory standards:*
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> *There is no evidence in the case file indicating that existing regulatory standards were exceeded. The following information, which was included with the IH referral, were reviewed: (Here we list specific documents, e.g., OHQ, EE-3, physician's letter, IH Reports (from SRS or RFP), SEM runs, IH monitoring data, etc). The term "within existing regulatory*

standards" is understood that nearly all workers may be repeatedly exposed, day after day, for a working lifetime without adverse effects[1].

<u>Footnote</u>:
[1]Regarding workplace regulatory standards, DOE historically has not adhered to the OSHA Permissible Exposure Limits or PELs, but rather has followed the lower (in almost all cases) American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value-Time Weighted Average levels (TLV-TWA). The 2021 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices document, defines a TLV-TWA as: "The TWA concentration for a conventional 8-hour workday and a 40-hour workweek, to which it is believed that nearly all workers may be repeatedly exposed, day after day, for a working lifetime without adverse effects."

IH Decision Samples with exposure over regulatory limits:


INV CCIH1 50022192_Redacted.


INV CCIH1 73859_Redacted.pd


INV CCIH1 50024379_Redacted.


INV CCIH1 50462_Redacted.pdf

Statutory Authority: The Board's scope is defined in Section 3687(b)(l)(A-D) of the EEOICPA. Please identify the statutory mandate(s) the data or cases being requested fulfill (for convenience you can refer to them as Subsection A, Subsection B etc.):

This falls under Subsection D "the work of industrial hygienists and staff physicians and consulting physicians of the Department and reports of such hygienists and physicians to ensure quality, objectivity, and consistency."

Supporting Rationale: Please provide an explanation for this information as it relates to the statutory authority identified above:

Various aspects of the IH, CMC, and general medical input into the claims adjudication process are critical to obtained fair, objective, and high quality claims decisions. The requested information addresses aspects of these elements and will help the Board provide useful advice to the Department.

Intended Use: Please advise what the Board is hoping to accomplish or learn from the requested data or cases:

The Board aims to better understand the functions and performance of the IH's and CMC's in the claims evaluation process.

DEEOIC requested the Board look at this topic?

No, this is a request from the Board.

Steven Markowitz, Chair, ABTSWH

4/27/22

Date