



DEC 18 2019

Dr. Steven Markowitz  
Chair  
Advisory Board on Toxic Substances &  
Worker Health  
Queens College, Remsen Hall  
65-30 Kissena Boulevard  
Flushing, NY 11367

Dear Dr. Markowitz:

I am pleased to provide you the Department of Labor's response to the recommendations made by the Advisory Board on Toxic Substances and Worker Health (Advisory Board or Board) at its February and April 2019 public meetings. The Department appreciates the dedication and expertise the Advisory Board provides to the Energy Employees Occupational Illness Compensation Program and its stakeholders. Your important work is making a difference.

On behalf of the Department, the Office of Workers' Compensation Programs, the Energy program, and the communities we serve, I look forward to the continued efforts of the Advisory Board.

Sincerely,

A handwritten signature in black ink, appearing to read "Julia K. Hearthway". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Julia K. Hearthway  
Director  
Office of Workers' Compensation Programs

Enclosure

## Revised Recommendation for Work-Related Asthma

(Adopted by the Advisory Board on Toxic Substances and Worker Health, February 28, 2019)

The Board recognizes the modifications made by EEOICP in the provisions relevant to work-related asthma as reflected in the EEOICP Procedure Manual V2.3, Appendix 1. It is also cognizant of the statutory requirement that a compensable condition under EEOICPA must be aggravated, contributed to, or caused by a toxic substance.

However, there remains one section where the current language of the EEOICP Procedure Manual is so divergent from current medical guidelines and practice that the Procedure Manual requires correction (bolded language below).

Procedure Manual Appendix 1 (Exposure and Causation Presumptions with Development Guidance for Certain Conditions), Section 5c(ii) includes the following (bolding language of note):

- ii. After a period of covered employment, a qualified physician conducts an examination of either the patient or available medical records and he or she concludes that the evidence supports that the employee had asthma and that an occupational exposure to a toxic substance was at least as likely as not a significant factor in causing, contributing to or aggravating the condition. The qualified physician must provide a well-rationalized explanation with specific information on the **mechanism** for causing, contributing to, or aggravating the conditions. **The strongest justification for acceptance in this type of claims is when the physician can identify the asthmatic incident(s) that occurred while the employee worked at the covered work site and the most likely toxic substance trigger.** A physician's opinion that does not provide a clear basis for diagnosing asthma at the time of covered employment or the physician provides a vague or generalized opinion regarding the relationship between asthma and occupational toxic substance exposure will require additional development including the CE's request for the physician to offer further support of the claim. If the CE is unable to obtain the necessary medical evidence from the treating physician to substantiate the claim for work-related asthma, the CE will need to seek an opinion from a CMC. If a CMC referral is required, the CE will need to provide the CMC with the relevant medical evidence from the claim file and provide a detailed description of the employee's covered employment which must include each covered worksite, dates of covered employment, labor categories, and details about the jobs performed.

Physicians generally understand "mechanism of disease" to mean the cellular or physiologic processes and mediators that cause a disease. As with most disease processes, clinicians would not be able to identify a "mechanism" for work-related asthma, as clinical tools generally do not identify mechanisms of disease, and in addition, because the mechanisms of

work-related asthma remain poorly defined. Thus, the request that the physician identify the mechanism of disease is not feasible and should be deleted.

We also recommend revising the description of “the strongest justification.” Most work-related asthma is caused by a toxic substance, so such cases satisfy the relevant statutory requirement noted above. However, in the great major of cases of work-related asthma, there are usually multiple exposure events and toxic substances rather than a single specific incident, so that singling out the one incident and agent that is a “most likely trigger” would be arbitrary and not possible in the great majority of cases. Therefore, the scenario for the “strongest justification for acceptance” outlined above is unrealistic and suggests a standard that could only be met by a small minority of cases of work-related asthma. The effect will be to deny the claims of legitimate cases of work-related asthma. It is also not a standard recommended in any of the professional guideline documents related to work-related asthma.

The Board recommends the following revised wording for the Procedure Manual:

- ii. After a period of covered employment, a qualified physician conducts an examination of either the patient or available medical records and he or she concludes that the evidence supports that the employee had asthma and that an occupational exposure to a toxic substance was at least as likely as not a significant factor in causing, contributing to or aggravating the condition. The qualified physician must provide a well-rationalized explanation with specific supporting information, including the basis for diagnosing asthma or worsening asthma at the time of covered employment and the basis for the relationship between asthma and the covered workplace.\* If the CE is unable to obtain the necessary medical evidence from the treating physician to substantiate the claim for work-related asthma, the CE will need to seek an opinion from a CMC. If a CMC referral is required, the CE will need to provide the CMC with the relevant medical evidence from the claim file and provide a detailed description of the employee's covered employment which should include each covered worksite, dates of covered employment, labor categories, and details about the jobs performed.

\* Note: examples of supporting information could be provided here or in training materials.

The Board also notes that the Table entitled Asthma, Occupational (Procedure Manual 2.3, page 543; Appendix 18-1) has not been updated and requires revision to be consistent with the relevant text in the revised Procedure Manual.

#### **References:**

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3. White GE, Seaman C, Filios MS, Mazurek JM, Flattery J, Harrison RJ, Reilly MJ, Rosenman KD, Lumia ME, Stephens AC, Pechter E, Fitzsimmons K, Davis LK. Gender differences in work-related asthma: surveillance data from California, Massachusetts, Michigan, and New Jersey, 1993-2008. J Asthma 2014; 51: 691-702.
4. Talini D, Ciberti A, Bartoli D, Del Guerra P, laia TE, Lemmi M, A, Di Pede F, Latorre M, Carrozzi L, Paggiaro P. Work-related asthma in a sample of subjects with established asthma. Respir Med 2017; 130: 85-91.
5. Anderson NJ, Fan ZJ, Reeb-Whitaker C, Bonauto DK, Rauser E. Distribution of asthma by occupation: Washington State behavioral risk factor surveillance system data, 2006-2009. J Asthma 2014; 51: 1035-1042.
6. Harber P, Redlich CA, Hines S, Filios M, Storey E. Recommendations for a clinical decision support system for work-related asthma in primary care settings. JOEM 2017; 59;11: e231-235.
7. Tarlo SM, Balmes J, Balkissoon R, et al. Diagnosis and management of workrelated asthma: American College of Chest Physicians Consensus Statement. Chest. 2008;134:1S-41S.
8. Henneberger PK, Redlich CA, Callahan DB, et al. An official American Thoracic Society statement: work-exacerbated asthma. Am J Respir Crit Care Med. 2011;184:368-378.
9. Jolly AT, Klees JE, Pacheco KA, et al. Work-related asthma. J Occup Environ Med.2015;57:e121-e129.

**DOL Response** – Since the Board’s recommendation was offered, the Division of Energy Employees Occupational Illness has updated the Federal (EEOICPA) Procedure Manual (PM) to version 3.1. However, the language the Board referenced in Exhibit 15-4.5cii remains unchanged from version 2.3, the version the Board referenced in its recommendation. After considering the Board’s input, DOL is unable to agree to the proposed language change to the PM.

**As the Board notes, the statutory requirement of the Act stipulates that a compensable condition must result from exposure to a *toxic substance*. Moreover, as DOL explained in its November 9, 2017, response to the Board (Recommendation #2 Presumption for Work-Related Asthma), the standard for evaluating a claim under the Act requires evidence that a toxic substance was the likely trigger for the condition because a condition can only be**

accepted as a compensable “covered illness” if “it is as least as likely as not that the exposure to such toxic substance was related to employment at a Department of Energy facility.” 42 U.S.C § 7385s-4(c)(1)(B). DOL understands that medical guidelines or epidemiological standards may exist that provide a basis for alternative methods to assess the relationship between asthma and materials encountered by workers at a covered facility, however, the Act is the sole legal basis for judging the sufficiency of a claim for compensability. DOL has no legal ability to modify statutory or regulatory requirements through revisions to the PM. Therefore, DOL considers the existing PM language at Exhibit 15-4.5cii that references a toxic substance trigger to align more accurately to the statutory requirement of the Act, rather than a reference to a relationship between asthma and the covered workplace.

### **Revised Asbestos Presumption Recommendation**

(Adopted by the Advisory Board on Toxic Substances and Worker Health, February 28, 2019)

As a result of interchange between the Board and EEOICP, the EEOICP and the Board have come to agreement on many aspects of EEOICP’s current policies for consideration of claims for asbestos-related diseases. There is agreement on the set of diseases covered, important time factors (duration of exposure; latency), and the use of 1995 as a key date for presumption of significant asbestos exposure. There is also agreement that the asbestos-related disease claims of DOE workers but who do not meet exposure and causation presumption criteria adopted by EEOICP should be evaluated through the normal claims adjudication process, including use of industrial hygiene and medical evaluations when appropriate.

I. The Board notes the following provisions of Exhibit 15-4 (Exposure and Causation Presumptions with Development Guidance for Certain Conditions) of the EEOICP Procedure Manual V2.3:

#### **A. Asbestos Exposure Presumptions**

1. EEOICP presumes that the 19 labor categories designated on List 3a(1) [Exhibit 15-04] had significant exposure to asbestos prior to 1996. No other labor categories are presumed to have had significant exposure to asbestos.
2. EEOICP makes presumptions about the levels of significant exposure to asbestos (low, medium, and high). List 3a(1) categories are presumed to have had high significant exposure to asbestos through 1986 and low significant levels of exposure to asbestos from 1987 through 1995.
3. EEOICP presumes that labor categories other than those on List 3a(1) have had exposure to asbestos between January 1, 1987 and December 31, 1995, but makes no presumption about the significance of their level of asbestos exposure.

4. EEOICP presumes that all job titles other than those on List 3a(1) do not have significant asbestos exposure after 1986.

These presumptions are summarized in Table 1.

B. Asbestos Disease Causation Presumptions

For any of the seven asbestos-related diseases, EEOICP requires *as a matter of a causation presumption* that the claimant have a “significant level” of exposure to asbestos. The level (high, medium, or low) of significant exposure to asbestos is not specified with reference in the causation presumption. See the summary in Table 2 below.

II. The Board has several important residual concerns and recommended revisions:

1. Since the asbestos disease causation presumption criteria include “significant exposure” (as defined by the exposure presumption) without regard to whether such exposure is high, medium or low, the designation of asbestos exposure for List 3a(1) labor categories as high, medium, or low in the exposure presumption is not used and should be deleted from the Procedure Manual.

**DOL Response – DOL agrees with the Board that the characterization of exposure for application in the standard that exists in Exhibit 15-4.3 should be limited to that exposure considered “significant” and that the standard should not apply a further distinction with regard to high, medium, or low exposure. Moreover, DOL will extend the temporal duration of the applicable standard for the qualifying labor categories with “significant” exposure to December 31, 1995.**

2. For labor categories other than those on List 3a(1), it is reasonable to retain the presumption that they had “some level of exposure to asbestos” prior to 1987 and that the industrial hygienist determine the significance of that exposure in decision-making on claims.

**DOL Response – DOL agrees and notes that this guidance exists in Exhibit 15-4.3a(2) of PM v3.1:**

**(2) All other labor categories are assumed to have had some level of exposure to asbestos. However, such levels are ascertained by an IH. The IH will determine if the level of exposure was significant (high, moderate, or low) or not significant (incidental-occurring in passing only).**

3. However, the Procedure Manual contains a clear negative presumption about asbestos exposure for jobs other than those in List 3a(1) between 1987 and 1996.

That is, the existing policy presumes that asbestos exposure attendant to these jobs occurred but was not significant due to a low likelihood that exposures exceeded established occupational health standards. The Board believes that this presumption is not justified, because it assumes that occupational health standards were fully protective and that DOE worksites were in full compliance with such standards. Since the former is not true and the latter is not proven, the Procedure Manual should take a more neutral stance on this issue and encourage an unbiased industrial hygiene assessment to determine the importance of exposures in the relevant claims. Thus, there should be no exposure presumption about the levels of asbestos exposure and their significance for jobs other than those in List 3a(1) between 1987 and 1996. When such claims are referred for an industrial hygiene assessment, the industrial hygienist will determine the significance of exposure to asbestos.

**DOL Response** – DOL applies a presumption of high exposure to asbestos for any employee working one of the qualifying labor categories listed in PM 15-4.3a(1) through December 31, 1987. As is noted in response to #2 above, DOL assumes that asbestos exposure occurred by other labor categories; however, the characterization of such exposure is dependent on an industrial hygienist assessment. DOL considers the existing procedural guidance to accommodate the Board’s recommendation.

4. The asbestos diseases causation presumption adds a requirement of “day by day” exposure for all but two asbestos disease categories. This measure of exposure frequency should be presumed for claimants who meet the asbestos exposure presumption of significant exposure noted above [List 3a(1)]. The Board recommends that “day by day” be retained only for evaluating the claims that are undergoing review by an industrial hygienist.

**DOL Response** – DOL agrees with the Board and it has already taken the initiative to remove references to “day by day” exposure from the Procedure Manual. EEOICPA Transmittal 19-02, dated May 16, 2019, revised the DEEOIC Procedure Manual to version 3.1. As part of this revision, DOL revised Exhibit 15-4 to exclude reference to “day by day” exposure for the presumptive standards for angiosarcoma, asbestosis, laryngeal cancer, leukemia, lung cancer, mesothelioma, ovarian cancer, and pleural plaques.

5. List 3a(1) (Table 3) has many important maintenance and construction job categories but lacks selected job titles that were reasonably presumed to have been exposed to asbestos prior to 1997. An examination of the SEM-listed labor categories from five DOE sites or labor groups (Hanford and PNNL, K-25, Y-12, Idaho National Lab; and Construction) yielded a supplemental list (Table 4) as determined by a subset of Board members. Examples of important exclusions include janitor, HVAC mechanic, instrument mechanic, elevator mechanic, and

others.

**DOL Response** – DOL will consider additional changes to the list of qualifying labor categories, however, the standard applies a generalization that extends to SEM labor categorization without distinction to a particular work site. As DOL explained in its November 9, 2017 response to the Board, the applicable list of jobs referenced in the standard derive from research conducted and compiled by the Agency for Toxic Substances and Disease Registry (ATSDR) in a June 29, 2014 booklet entitled *Case Studies in Environmental Medicine, Asbestos Toxicity*. While it may be possible for DOL to add at least some of the recommended labor categorizations (Table 4) to the asbestos exposure standard, it would be very helpful for the Board to provide the underlying industrial hygiene or epidemiological basis for how it determined that each of the additional labor categories have had significant exposure to asbestos prior to 1995. DOL would like to ensure a consistent and uniform process for assessing the addition of any specific labor category to the asbestos exposure standard.

The Board recommends that a Board Committee work with the EEOICP and their industrial hygiene contractor to examine all SEM job titles and aliases and identify job titles that should be added to List 3a(1) for the purposes of a presumption of asbestos exposure.

**DOL Response** – DOL welcomes any additional input or recommendation the Board has with regard to the identification and classification of SEM job titles that likely had a significant exposure to asbestos.



Table 1. EEOICP Procedure Manual V2.3, Exhibit 15-4, Asbestos Exposure Presumption

<b>Time period</b>	<b>Job Category</b>	<b>Overall Exposure</b>	<b>Specific Exposure</b>
pre-1987	3a(l) list	presumed to be "significant"	high
pre-1987	other jobs	presumed to have had "some level of exposure"	significance determined by industrial hygienist (high moderate, low)
1987-1995	3a(l) list	presumed to be "significant"	low
1987-1995	other jobs	presumed to be "not significant"	-

Source. EEOICP Procedure Manual V2.3

Table 2. EEOICP Procedure Manual V2.3: Exposure Criteria Required for Causation Presumption

	<b>Level of Exposure</b>	<b>Duration</b>	<b>Latency</b>
Asbestosis	significant "day by day"	≥250 work days	10 years
Pleural plaques	significant "day by day"	≥250 work days	10 years
COPD	significant	20 years	20 years
Laryngeal cancer	significant "day by day"	≥250 work days	15 years
Lung cancer	significant "day by day"	≥250 work days	15 years
Mesothelioma	significant "day by day"	≥30 work days	15 years
Ovarian cancer	significant	≥250 days through 1986	15 years

Source. EEOICP Procedure Manual V2.3

Table 3. EEOICP Procedure Manual V2.3 List 3a(1), Exhibit 15-4

Automotive mechanic; Vehicle mechanic; Vehicle maintenance mechanic
Boilermaker
Carpenter; Drywaller; Plasterer
Demolition technician;
Laborer
Electrical mechanic; Electrician;
Floor covering worker
Furnace & saw operator; Furnace builder; Furnace operator; Furnace puller; Furnace technician; Furnace tender; Furnace unloader
Glazier; Glass installer; Glazer
Grinder operator;
Tool grinder;
Maintenance mechanic (general grinding);
Welder (general grinding);
Machinist (machine grinding)
Insulation worker; Insulation trade worker; Insulator
Ironworker;
Ironworker rigger
Maintenance mechanic;
Electrician;
Insulator;
Mason (concrete grinding); Mason ; Brick & tile mason; Concrete and terrazzo worker; Bricklayer, Tiler
Millwright
Heavy equipment operator; Operating Engineer
Painter
Pipefitter, Plumber steamfitter; Plumber/pipefitter; Plumbing & pipefitting mechanic; Plumbing technician, Steamfitter
Roofer
Sheet metal mechanic; Sheet metal fabricator/installer
Welder; Welder burner; Welder mechanic

Table 4. Job Categories in 3a(l) List and Additional SEM Job Titles from Selected DOE Sites with Presumed Asbestos Exposure Prior to 1997

<b>3a1 List</b>	<b>Job Titles that should be added to the 3a1 list** (presumed asbestos exposure prior to 1997)</b>
Automotive mechanic; Vehicle mechanic; Vehicle maintenance mechanic	Asbestos Worker*
Boilemaker	Auto Body Mechanic*; Auto Body Repair/Painter; Auto Body Repairman; Mechanic, Auto Paint and Body Repair; Technician, Auto Body
Carpenter; Drywaller; Plasterer	Blacksmith
Demolition technician;	Boiler Operator
Laborer	Construction Worker
Electrical mechanic; Electrician;	Elevator Worker, Construction
Floor covering worker	Escort, Construction
Furnace & saw operator; Furnace builder; Furnace operator; Furnace puller; Furnace technician; Furnace tender; Furnace unloader	ESH Officer
Glazier; Glass installer; Glazer	Foreman, Crafts
Grinder operator;	Heat/AC, Construction*
Tool grinder;	Janitor; Janitor, Construction
Maintenance mechanic (general grinding);	Laborer; Laborer, Construction*
Welder (general grinding);	Maintenance Worker
Machinist (machine grinding)	Manager, Construction
Insulation worker; Insulation trade worker; Insulator	Mechanic, HVAC; Mechanic, HVAC/refrigeration; Mechanic, Air Conditioning/Refrigeration; Mechanic, Refrigeration; Refrigeration worker
Ironworker;	Mechanic, Instrument
Ironworker rigger	Mechanic, Power Equipment
Maintenance mechanic;	Mechanic, Service
Electrician;	Mechanic, System*
Insulator;	Mechanic, Vacuum Equipment
Mason (concrete grinding); Mason; Brick & tile mason; Concrete and terrazzo worker; Bricklayer, Tilesetter	Technician, Welding*
Millwright	Truck Driver, Construction
Heavy equipment operator; Operating Engineer	Vehicle and Construction Equipment Mechanic, Construction*
Painter	Construction Field Representative
Pipefitter, Plumber steamfitter; Plumber/pipefitter; Plumbing & pipefitting mechanic; Plumbing technician, Steamfitter	Firefighter
Roofer	Crafts foreman
Sheet metal mechanic; Sheet metal fabricator/installer	Lineman
Welder; Welder burner; Welder mechanic	Maintenance Shop Laborer
	Operator, Steam Plant
	Technician, Mechanical
	Technician, Instrument
	Technician, Maintenance
	Technician, Radiation
	D&D workers (Deactivation and Decommissioning)

\*Job Titles that may or may not already be included on the 3a1 list

\*\*Selected from SEM job categories from Hanford, PNNL, INL, K-25, Y-12, and Construction

## **Revised Occupational Health Questionnaire Recommendation**

(Adopted by the Advisory Board on Toxic Substances and Worker Health, February 28, 2019)

### **History**

The Board adopted a specific recommendation to improve the Occupational History Questionnaire (OHQ) at the April 2018 meeting. This recommendation included:

1. Inclusion of tasks associated with listed toxic materials as well as frequency of exposure using a scale consistent with the current OHQ and the scale used by BTMED.
2. Expansion of the hazardous materials list to specifically include a list of hazards causing chronic obstructive pulmonary disease (COPD) and other health conditions.
3. Addition of tasks currently used in the exposure assessment by BTMED.
4. Adding a specific question to the OHQ regarding exposure to vapors, gases, dusts and fumes (VGDF), the most common cause of COPD in the current peer-reviewed published literature.

In November 2017, the Department of Labor (DOL) provided written responses to the Board's recommendation. The DOL did not accept the Board's recommendation concerning the OHQ revisions nor addition of questions concerning exposures to VGDF. OWCP welcomed specific recommendations on a draft revised OHQ and- 'a list of toxic substances that represents vapors, gases, dusts, and fumes.'

In February 2018, the Board considered the OWCP response and reviewed the draft revised OHQ provided by OWCP. The Board concluded that the draft OHQ provided too little detail and structure to serve as 'memory triggers' to help claimants recall specific tasks and exposures at DOE sites. The Board also noted that the recommended OHQ revisions were closely tied to other Board recommendations intended to improve the quality of claimant- provided exposure information and use of this information during claim adjudication.

In August 2018 the DEEOIC stated that it was 'continuing to review revisions of the OHQ and will consider the suggestions of the Board'.

### **Recommendations Concerning the Draft Revised OHQ**

At the November 2018 Board meeting of the newly appointed Board, a working group was established to further review the draft proposed OHQ. The working group has performed a detailed review of the current OHQ and the DOL-revised draft OHQ. The

working group also considered the prior Board recommendations concerning the current OHQ and the DOL responses.

The Board notes the following:

1. While free text descriptions of work and exposures are often extremely valuable, it remains the Board's opinion that the draft revised OHQ lacks sufficient structure and detail to help claimants recall and record toxic substance exposures experienced at DOE sites.
2. The Board believes that some sections of the current OHQ that are omitted or significantly modified in the DOL-revised draft OHQ provide information potentially useful in claim evaluation and adjudication.
3. There are some sections of the draft revised OHQ that may require claimants significant time to complete but provide information of marginal use in evaluating claimed exposures. Therefore, Board recommends that some sections be dropped or substantially reduced in scope.

The following are the Board's recommendations on the draft revised OHQ by section.

The Board has no recommendations for OHQ sections not discussed below.

**DOL Response** – DOL appreciates the Board's input with regard to improving the OHQ. DOL notes that the Board asked DOL for an expedited review of the OHQ recommendation so that the process of revising, pilot testing, and implementing a revised OHQ can proceed in a timely manner. DOL agrees with this sentiment and it has already been working with the SEM contractor to make updates to the OHQ. Once DOL develops a revised OHQ, including changes suggested by the Board, DOL intends to conduct a pilot test. DOL agrees with the Board on its recommendations that the OHQ include more structure to content, adoption of a frequency scale, as well as adding a duration inquiry. In response to each recommendation, DOL has provided further explanation to its position in the following section. DOL expect further edits and changes to the OHQ based upon results of pilot testing. Accordingly, adjustments may be needed which may differ in some ways from what is discussed below.

#### **Board Recommendations:**

##### **Section 4(0): LABOR CATEGORY (While employed at a DOE Facility)**

The SEM plays an important role in the assessment of claimant exposures. Site and labor category are used by the SEM as primary variables in determining claimant exposures. While the labor categories and sub-categories in the Excel file dropdown list (or Attachment 3.A) seem appropriate for broad classification, it is not clear how these tie with the SEM jobs and job aliases? These ties should be made as explicit as possible, realizing the large number of jobs across DOE sites.

**DOL Response** – DOL did not intend to have the OHQ dropdown list capture the thousands of job titles used throughout the DOE Complex. The dropdown list is designed to remind the DOL Resource Center (RC) interviewer and the claimant of the most common labor categories. DEEOIC will add another column to the table for the employee's specific job title. This way the claimant can provide the exact title(s) he/she had while working at DOE, many of which are specific to the facility at which they worked.

#### **Section 4(E): WORK AREAS AND ACTIVITIES**

This section requests that a claimant provide a free text description of the work performed in each job title from Section 4D to include----'Area, Facility, Building Number/Name or Description; Work Activity; Labor Category/ Job Title; Toxins / Agents; Years of Employment; Frequency (days / week, hours / month, etc.)'. The example provided represents a good work summary; however, such detail is not realistic to expect for most claimants by way of an unstructured response. The Board recommends more structure in this section.

Section 6 of the current OHQ provides more structure for collecting information about work areas and activities. The Board considers such structure to be an important aide to claimants as they attempt to recall and organize information. The Board recommends that this approximate structure be retained in the proposed OHQ. The column headings could be modified to reflect the types of information requested (e.g. 'Area, Facility or Building Number/Name or Description', 'Years of Employment', 'Description of the Work Performed', 'Toxic Substance Exposures', 'Frequency of Exposure'). These suggested headings replicate the items proposed in Section 4(E) of the DOL-revised draft OHQ.

While the frequency scale used in the current OHQ has been found useful for exposure assessment, a less complex scale based on key words more easily understood by claimants would be sufficient. A BTMED COPD case-control study found the following frequency scale adequate for assessment of exposures among DOE construction workers:

<b>Rarely:</b>	Less than once per month
<b>Daily:</b>	Daily or almost every day
<b>Monthly:</b>	1-2 times per month

**DOL Response** – DOL agrees that the column format can be very helpful for claims staff who review the form, as it helps to organize the information. It also serves to aid claimants in their recall of relevant employment and exposure history. DOL will utilize a column format for work areas and activities to include the frequency of exposure scale, as suggested by the Board.

#### **Section 5: EXPOSURE INFORMATION**

This section of the draft revised OHQ differs from the current OHQ in that only broad categories of toxic substances are listed, with exposure details relegated to free text

descriptions to be provided by claimants. The Board recommends more structure in this section to aide in claimant recall and assessment of toxic substance exposures based on duration, frequency, and intensity of exposure. The Board specifically recommends the following.

1. Within each broad category of toxic substance, a list of specific substances should be provided similar to the current OHQ. The specific toxic substances within each category should be carefully chosen to be representative of exposures most common across DOE sites, with specific attention to toxic substances associated with the direct disease link work process (DDLWP), to link medical conditions to specific tasks (Chapter 15 and Appendix 1 of the EEOICP Procedure Manual (Version 2.3)).

**DOL Response** – DOL agrees that providing some examples of each category of toxic substances is useful and will re-incorporate this into the form for pilot testing. However, our experience has been that it is unreasonable for interviewers to read aloud long lists of chemicals and pick names. The purpose of moving to a free form style interview is to give the claimant more opportunity to describe his/her work in DOE facilities, while at the same time identifying details of that work that are important to the claim and its adjudication. DOL wants to obtain objective input from claimants that best describes their recollection of an employee's work and exposure history. Applying techniques to supply pre-selected information that the employee could attest to absent any corroborating connection to other evidence obtained during development may produce unauthentic or unreliable outcomes. The function of the OHQ is to obtain information specific to the employee's work and exposure history. Attempting to organize the presentation of information in a manner that is "representative" of the exposures that DOL assumes occurred for different pre-selected categorizations may not result in the accurate capture of information about the unique features of an employee's exposure history. Respondents would be more apt to classify themselves into pre-chosen categorizations rather than providing their own unique work or exposure experience.

Board recommends that substances from the published literature and/or the SEM causing or contributing to COPD be included in the specific toxic agents by major category.

**DOL Response** – The free form interview technique gives claimants the opportunity to identify substances linked to COPD and any other diagnosis that they believe are associated with their DOE employment. Additionally, the resource centers should not be making determinations or suggestions as to linkages between toxic substances and diagnosis. The assessment of linkages between diagnosis(es) and toxic substance exposure occurs during adjudication process by DEEOIC federal staff. DOL also does not think it appropriate to focus on one specific diagnosis (or group of diagnoses), such as

**COPD, in the OHQ.**

Claimants should be allowed to add other toxic substances not specifically listed, with comparable data collected for these added substances.

**DOL Response – DOL agrees that claimants be given this opportunity and the planned OHQ improvements include this option.**

2. The Board notes that the current OHQ has an extensive list of 'High Explosives' and recommends that some attention be given to reducing the number of listed materials to those most common across DOE sites.

**DOL Response – DOL agrees that DOE did not use high explosive substances extensively across the entire atomic weapons complex. Heavy use of these materials occurred only at a few select sites. As a result, DOL agrees to eliminate this section from the OHQ. Claimants who worked with such materials should be able to identify them individually when responding to the question relating to other toxic substance encountered.**

3. Frequency of exposure to each toxic substances should be recorded on a qualitative scale such as previously described (e.g. Rarely, Monthly, Weekly, Daily).

**DOL Response – DOL agrees to add a request for qualitative exposure information.**

4. Duration of exposure (e.g. years or months) should be recorded for each reported exposure.

**DOL Response – DOL agrees to modify the OHQ to include this information in the interview, and will evaluate the efficacy of this approach during pilot testing.**

5. Exposure intensity should be addressed by allowing the claimant to describe how they were exposed to each toxic substance, with an emphasis on specific tasks performed with or around toxic substances.

**DOL Response – DOL agrees to modify the OHQ so the interviewer will ask the claimant to explain the usage of each toxic substance referenced.**

6. A check box should be added for each toxic substance to indicate if work with or around the toxic material resulted in exposures to vapors, gases, dust, or fumes (VGDF).

**DOL Response – DOL will add a request to the OHQ to have the interviewee report on the form of each toxic substance (e.g., is it a dust, gas, fume, solid**



or liquid?).

The Board notes that radiological hazards are omitted in the broad categories of exposure in the proposed OHQ. The rationale for this exclusion is not clear. The Board recommends that radiological hazards be retained in the revised OHQ.

**DOL Response** – DOL agrees to add a radiological section to the OHQ that will capture information about exposure to radiological toxic substances.

## **Section 6: PERSONAL PROTECTIVE EQUIPMENT (PPE)**

The current OHQ and the draft revised OHQ both contain a rather extensive listing of PPE and requests details of use. The Board understands the role of PPE in exposure mitigation; however, the actual field protection factors provided PPE are often poor. This is especially true historically when PPE may have been provided in the absence of an adequate program for proper PPE selection, fitting, deployment, and maintenance. Given these limitations, the Board recommends that this section of the OHQ be limited in scope or eliminated. The Board does not believe that positive answers to having worn PPE should be used as a factor in denying claims.

The Board recommends expedited review of this recommendation so the process of revising, pilot-testing, and implementing a revised OHQ can proceed in a timely manner.

**DOL Response** – DOL agrees that there is little beneficial use of the PPE information requested by the current OHQ. DOL agrees to eliminate this section of the OHQ.

### **Rationale**

The current recommendations are similar in scope and intent as the Board's original recommendations; therefore, the prior stated rationale and references apply and are not repeated. An additional reference is provided for the proposed exposure frequency scale as well as a more general reference concerning the design of occupational exposure questionnaires.<sup>2</sup>

### **References**

1. Dement J, Welch L, Ringen K, Quinn P, Chen A, Haas S. A case-control study of airways obstruction among construction workers. *American journal of industrial medicine*. 2015;58(10):1083-1097.
2. Nieuwenhuijsen MJ. Design of exposure questionnaires for epidemiological studies. *Occup Environ Med*. 2005;62(4):272-280, 212-27.

**Recommendation #18**

(Adopted by the Advisory Board on Toxic Substances and Worker Health, April 25, 2019)

The Advisory Board requests resources (such as an external contractor to provide personnel, IT support, and additional resources as required) to assist the Board in order to conduct a timely systematic evaluation of an appropriate number and variety of Energy Employees Occupational Illness Compensation Program claims to assess and to ensure the objectivity, quality, and consistency of the industrial hygiene and medical evaluations that are part of the claims process (Board Task 4).

**DOL Response – DOL will confer with the Board’s Chair to explore options for providing contractor support to the Board in fulfilling its legislative mandate.**

**Recommendation #19**

(Adopted by the Advisory Board on Toxic Substances and Worker Health, April 25, 2019)

The Board has observed, based on review of a limited number of recent claims, that recent Energy Employees Occupational Illness Compensation Program industrial hygienist assessments frequently use stereotypic language that cite the absence of monitoring data above the established regulatory levels in the mid-1990's. The Board recommends that this language be omitted from the industrial hygienist report. The basis for a negative exposure determination should be provided by the industrial hygienist in the report. Neither the absence of monitoring data post-1995, nor the presence of data showing exposure levels below regulatory limits should be interpreted as representing an absence of significant exposure or risk.

**DOL Response – DOL does not agree to make the Board’s recommended changes.**

**In considering the Board’s recommendation, DOL has to rely on the professional judgment of its team of Certified Industrial Hygienists in establishing reasonable parameters for characterizing toxic substance exposure. In the absence of definitive monitoring data for the thousands of chemical, biological or radiological materials that existed throughout the DOE nuclear weapons complex, it is impossible to gauge individual exposure with the level of accuracy that might otherwise be attainable. As such, the DOL Industrial Hygiene team applies an exposure assignment methodology that in virtually all cases assumes a much higher level of toxic substance exposure than would have been actually encountered by DOE contractor or subcontractor employees. This is particularly true in cases involving much later work histories. For these later work histories, the Board’s assumption that significant employee exposures occurred absent any affirmative monitoring or other occupational safety and health assessment information is not reasonable.**

**Given the changing dynamic of the nuclear weapons complex from one of active production to one directed more toward maintenance and remediation, a general reduction in significant operational exposure to toxins by workers is inevitable. Moreover, both legislative and well-documented agency enhancements to workers’ safety cannot be viewed as inconsequential or ineffective. Even the Board itself has referenced improving**

occupational safety and health standards at DOE with the progression of time. DOE has also taken other actions to enhance employee protections. For example, DOE typically adheres to the American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values – Time Weighted Average (TLV-TWA) values, which are generally more stringent than the OSHA Permissible Exposure Limits (PELs). This is significant because PELs are OSHA enforceable legal standards. They are relevant in this discussion because they reflect the language that is currently used in the industrial hygiene reports regarding exposures after the mid-1990s (i.e., within existing regulatory standards). In considering these realities, DOL Industrial Hygienists continue to assess exposures for the entire work history of each employee, regardless of the temporality of that employment. However, DOL Industrial Hygienists must use their best judgment and consider the systemic changes that occurred in the mid-1990s that indicate that significant exposures to toxic substances were less likely.

In its Industrial Hygiene assessments, DOL has never suggested that significant exposures could not occur during any period of employment through the present. DOL's Certified Industrial Hygienists thoroughly review each industrial hygiene referral, including all accompanying documentation (i.e., OHQ, EE-3 forms, additional work statements, affidavits, site IH records, etc.). Where the evidence provides sufficient compelling justification, the DOL Industrial Hygienists assign significant exposures to employees regardless of when the employee worked. There are many instances, for example, where post-1995 industrial hygiene personal data have shown excursions above the American Conference of Governmental Industrial Hygienists Threshold Limit Values – Time Weighted Average values for asbestos and/or lead. In these scenarios, DOL Industrial Hygienists will describe such evidence in their reports and assign exposures for the duration of the sampling events (despite the documented use of full PPE, including respiratory protection, which exceeded the necessary protection factor). In other instances, employee descriptions of specific work activities or other work processes will be of such convincing quality to warrant affirmation of significant exposure even in the absence of specific monitoring data.

DOL's Industrial Hygienists take the position that unless there is some definitive evidence of significant exposure past the mid-1990s, whether that is specific monitoring data or other information of exposure, it is a disingenuous application of industrial hygiene principles to make affirmative findings of significant exposure. Moreover, the assistance that DOL provides in characterizing employee exposure is open to challenge during the claim adjudication process. A claimant may choose to provide additional information that supports an argument of higher exposure than assigned by a DOL Industrial Hygienist. This includes evidence that significant exposure occurred for any period, whether that is before or beyond the mid-1990s.