DEEOIC Claims Examiner Training Course

Exposure Development

PARTICIPANT GUIDE

US Department of Labor
Office of Workers’ Compensation Programs
Division of Energy Employees Occupational Illness Compensation
200 Constitution Avenue, NW
Washington, DC 20210
# Developing for Exposures

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Session Description

This session provides basic information regarding exposure – definition of toxic substances, how a worker may be exposed to a toxic substance, what key elements are considered when looking at exposure, the importance of dose.

Thereafter, the instruction focuses on the wide range of tools the CE may use to help establish exposure. Each tool is reviewed with information provided about what it contains and, importantly, how the information can be used to establish exposure.

Instructional Objectives

Upon completion of this session, you will be able to:

- Identify the routes of exposure
- Explain the importance of dose when considering exposure
- List tools that can be used to establish exposure
- Identify where to locate and how to obtain each tool
- Describe how information found in each tool can be used to establish exposure
- Explain the difference between a production and construction worker
- Identify the ECS coding associated with each tool

Some Acronyms

- CE – Claims Examiner
- DAR – Document Acquisition Request
- DOE – Department of Energy
- CMC – District Medical Consultant
- FWP – Former Worker Program
- IH – Industrial Hygienist
- NIOSH – National Institute for Occupational Safety & Health
- OHQ – Occupational History Questionnaire
- POC – Probability of Causation
- SEM – Site Exposure Matrices
Toxic Substances and Exposure

What are toxic substances?

- Toxic Substances
  - 20 C.F.R. § 30.5(ii) defines toxic substance as any material that has the potential to cause illness or death because of its radioactive, chemical, or biological nature.
  - Toxic substances include:
    - Chemicals (gases, pesticides, machining fluids)
    - Metals (lead, chromium, cobalt, beryllium)
    - Mineral dusts (silica, calcium fluoride)
    - Dusts/fibers (asbestos, wood, cement)
    - Solvents (acetone, benzene, carbon disulfide)
    - Welding/soldering fumes

How can a worker be exposed?

- Exposure to Toxins
  - How can a worker be exposed?
    - Inhalation (breathing)
    - Absorption (through the skin, eyes, mucous membranes)
    - Ingestion
    - Injection (e.g., being cut with contaminated material)
  - Exposure is a function of route, duration, and frequency
Dose

Exposure is a function of route, duration, and frequency.
Essentially, any substance can be toxic, depending on the dose (water for example, wet vs. drowning).

The Dose Makes the Poison

- Exposure by itself is not enough to establish causation; it is the dose that makes the poison:
- Substance X
  - Specific characteristics (radioactive, chemical or biological nature)
  - Route of exposure (inhalation, absorption, ingestion, or injection)
  - Extent of exposure (frequency and duration)
Tools to Help Establish Exposure

- Presence & Contact (can often be established using the same tools)
  - SEM
  - DAR
  - OHQ/verified affidavits
  - DOE FWP/Building Trades screening programs
  - Physician Panel reports
  - DOE Site Profiles
  - Other probative evidence

- Plausibility – given the evidence at hand, the claimed illness arose out of occupational exposure to a toxic substance at a covered DOE facility
Site Exposure Matrices (SEM)

What is it?
SEM is a tool to establish the presence of and potential for contact with toxic substances in the workplace.

SEM is:
- a tool to establish presence and potential for contact
- a living document and does not contain all information for every covered facility/site
- flexible
Data Sources

Sources of data used to populate the SEM include:

- DOE assessment & technical reports, based on new information from DOE program offices & site investigations
- National Institute of Health’s Haz-Map chemical database (as evaluated by SEM Team)
- Industrial Hygiene databases (SAX & Hawley’s) & other technical databases on the web or available through subscription
- NIOSH Site Profiles
- FWP Needs Assessments, Worker Roundtables & evidence submitted by the public
- SEM is updated as information becomes available
Two Categories of Searches

SEM

- SEM establishes potential exposures by identifying causative agents.
- SEM consists of essentially two matrices:
  - Universal searches
    - Toxic Substances - Physical & chemical properties
    - Health Effects
  - Searches Specific to the Site
    - Buildings
    - Processes
    - Labor Categories
    - Job Descriptions
    - Incidents
    - Exposure Factors - Safety Controls, Risk Factors, Time Frames
Basic SEM Searches and Their Relevance

Construct Searches Based on Available Information

- Health Effect (a universal search will identify whether the condition is potentially related to occupational exposures)
- Labor Category (be aware of potential overlap; i.e., pipefitters vs. welders)
- Labor Processes/Building/Area (useful when the employee’s labor category is not reported in SEM)
- Any combination that best reflects the most employee favorable exposures
- SEM is not a stand-alone tool and should not be used as the basis for denying claims

We are not trying to pigeon hole you into a particular search; this is an intuitive exercise that will vary based on the information at hand.

Do not keep the searches that are not relevant.

Remember that policy disallows the use of HAZ Map to determine if an illness has an occupational origin. HAZ Map plays a supporting role to SEM and only SEM should be used as a development tool.
Production Worker and Construction Worker Searches Differ Significantly

- Production worker will be searched by facility
- Construction worker will be searched by a combination of generic construction searches (to identify hazards intrinsic to the craft without regard to facility) & facility-specific searches

Other Sources of Information

- The EE-3, OHQ, and DAR responses are often excellent sources of information regarding job titles, work locations, specific exposures, and facility incidents.
- Occasionally, depending on the time period, industrial hygiene monitoring data may be available
- This information can be used to facilitate SEM searches.
SEM Security

Like all government applications, it is important that you do not share your password for the SEM! For reasons of national security, the DOL has an agreement with the DOE to not share the information incorporated into SEM.

- Although SEM contains unclassified information, the site has restricted access
- A version of SEM is available through the DOL website:
  - provides information relating specific illnesses to specific toxic substances
  - does not identify the location of the toxic substance at the facility or any information regarding labor categories, processes, etc.
Remember!!

SEM identifies illnesses currently \textit{known to originate} from occupational exposures.

The absence of a condition in a universal SEM search just means that it has not been profiled yet or may still be under investigation by the SEM team.

The absence of a condition in a facility-specific SEM search does not necessarily eliminate the possibility, in some cases, that the agent in question was not present. If warranted by the OHQ and other available information, additional investigation may be necessary (i.e., discussion and/or referral to an IH).

Remember!!, continued

SEM may be used as the sole basis for establishing causation, see procedural guidance (i.e., PM 2-0700 8.)

SEM is \textit{never} to be used as the sole basis for a denial!

Follow current ECS procedures for documenting your SEM search
FAB Remand Based on New SEM Search

NOTE:

FAB can remand on the basis of SEM revealing new information, if the information HAS THE POTENTIAL TO CHANGE THE OUTCOME OF THE ADJUDICATION.
SEM Questions

Where are we in establishing exposure?

- Presence, Contact & Plausibility
  - SEM
  - DAR
  - OHQ/verified affidavits
  - DOE FWP/Building trades screening programs
  - Physician Panels
  - DOE Site Profiles
  - Other *probative* evidence
Document Acquisition Request (DAR)

- Means by which the CE gathers the DOE work records of the employee.
- Information contained in DAR records may vary from site to site.
- DOE response typically consists of a myriad of documents, including:
  - Radiological Dose Records
  - Incident or Accident Reports
  - Industrial Hygiene or Safety Records
  - Pay & Salary Records
  - Job Descriptions
  - Medical Records
  - Other

DAR records can be a treasure trove of information. While all sources of information are important, the DAR frequently contains some little nugget of information that can turn the whole case around.

Many of us have experienced turning a NIOSH denial into an SEC acceptance based on information contained in the DAR. Or we have turned a denial for lack of verified employment around because the DAR had evidence that placed the employee on site or identified employment not originally remembered by the employee or known by the claimant.

Unfortunately, we’ve also had cases were evidence established that the claimant was not an eligible survivor.
Old Part D Claims

If the claim was originally filed under Part D (older claims), remember to check the Share Drive FIRST (all FOUR folders)!!!! Z:\Policies and Procedures\Employment Verification Information\DAR Records. Since a large number of claims were partially deferred in prior adjudications, the CE may have to go to the Shared Drive to review these records.

Check the file carefully! Some DAR responses may be small and easily overlooked; DAR responses typically include forms that identify what records were provided or that no records were found (“NRF”)
DOE Response

Best practice is to request DAR records early in development. The CE needs to advise the supervisor when 90 days have elapsed. Refer to Bulletin 04-06 for additional follow-up with the DOE.

- The DOE has 90 days to respond to requests for information or documents under Part E (20 C.F.R. § 30.303(a), published 12/29/2006, effective 02/27/2007).

- When requesting DAR information from a corporate verifier, do NOT include DAR questionnaire.
Radiological Dose Records

- These documents are radiation exposure records based on readings from dosimetry badges or similar personal recording devices. They are generally taken at regular intervals during the employee’s work.

- However, radiological dose records can be material to other non-cancerous illnesses (aplastic anemia, cataracts, acute radiation sickness). If a cancer was previously claimed, the NIOSH CD may have useful information regarding dose for the non-cancer conditions. If the dose records were not previously requested, now is the time to do so for these non-cancerous conditions which may be related to radiological exposures.

Although the policy directs that the CE does not request such records when developing a claim for cancer (because radiation exposure information will be obtained by NIOSH), these records can help establish employment.
Incident or Accident Reports

- Any abnormal incidents or large plant accidental substance releases affecting the employee are documented in these types of documents.
- These reports might contain specific details (*including building locations!*!!) about the incident, who was exposed and what substances the worker was exposed to (chemicals, radioactive substances, certain biological hazards, etc.).
- Sometimes those reports may not name those involved (but should be treated as a part of the employee’s exposure and work records).

Industrial Hygiene

- Documents in these categories could contain periodic inspection reports for health and safety reasons. Industrial hygiene and safety records can encompass a number of forms.
- These can range from formal exposure monitoring records (substance monitored and exposure measured, work location and duties, protective equipment worn) to copies of urinalysis results, descriptions of toxic substance releases or complaints of possible exposure (smells, leaks, rashes, etc.).
- For a number of sites, industrial hygiene records (exposure monitoring, respirator fit testing, medical monitoring data, etc.) might only be found in a worker’s site medical records.
Industrial Hygiene, continued

- Consider the completeness of the DAR. If no industrial hygiene (IH) records are available, it is possible that the employee was in a labor category where monitoring was determined not to be necessary, or the potential exposures were comparatively low.
- The possibility also exists however, that records were destroyed.

If the condition is not known to originate from occupational exposures, and there is no evidence to suggest IH monitoring, and there is no underlying condition that could be related to exposures that impact the claimed condition, further development may be unnecessary.

- However, a condition known to be linked to occupational exposures (SEM), even if such exposures are not documented, could warrant a referral to an IH (as addressed more fully later).
- If peer-reviewed studies are provided by a claimant, linking a condition with a specific toxin (not in SEM), a toxicology referral should be made.

Consider the Y-12 employee with mercury poisoning who had no industrial hygiene records to evaluate and SEM gave her no potential exposures for either her labor category or her building. Because the illness was an occupational illness (that is to say it was reported by SEM), the case was referred to an IH to determine whether she could have had exposures to mercury that we were unable to identify. The IH determined through his investigation that her office had been built on a site where a mercury contaminated building was previously destroyed.
Your Notes
Pay and Salary

These documents include an employee’s pay, salary, any workers’ compensation claim or other documents affecting wage.

Examples of records from the DOE database could include, but are not limited, to Official Personnel Files of Contractor Employees, Contractor Job Classification, Employee Awards Files, Notification of Personnel Actions, Classification Appraisals, Wage Survey Files, and Unemployment Compensation records.

These records can reflect site to site transfers (esp. useful when claimant omits an additional work site).

For example, an employee only claimed Y-12 employment. The case was submitted to NIOSH and was in a posture for a denial.

However, in reviewing the DAR, a copy of a memo he wrote suggesting the bus schedule between Y-12 and K-25 be changed to accommodate workers signing in at one facility and working at another was discovered. Further review revealed that his Y-12 performance evaluations specifically discussed how the employee spent approximately two years setting up, testing, and maintaining two new boiler systems at the K-25 Plant.

The case was paid as an SEC.
Job Descriptions

These identify the various employment positions at the plant and the duties required to perform the job.

Job descriptions might be found throughout an employee's DAR and may note in which building or part of a site the employee worked. Job descriptions may change due to change in job title (temporary or longer term), reassignment to another building or facility, renaming of job categories, change of employer, etc.

Some changes in job descriptions will be found on time cards; others may be found by reviewing medical, radiation, IH, and other records.

Your Notes
Medical Records

- Contains personal medical histories of when the employee visited the plant infirmary (i.e. Health Unit Control Files, Employee Medical Folder, etc.)
  - Dispensary records
  - Pre-, post-employment & annual physical exams
  - Auditory & visual screenings
  - Occupational x-ray records
  - Local hospital records submitted to the plant physician
- These records often contain building locations. Be careful to ensure that the building location is the work location of the employee, not the infirmary location.

For example, an employee or survivor claims Oak Ridge, without identifying a specific facility, or naming them all. In the initial stage of employment verification, because the employee was a subcontractor, DOE may have provided incomplete information.

However, when we request the DAR, the medical records may not only reflect additional employment (that the employee didn’t ever remember or the claimant didn’t know about), but also may include building locations that may help identify when and at which facility the employee worked.
Other

- This category is reserved for any other documentation necessary on a claim specific basis which does not fit into any of the other six categories.

- An example is if the CE needs site specific information; i.e., whether a particular substance present was at a particular facility (remember if the answer is yes, we need to notify the SEM POC).

The letter should be site specific. Use the proper letter to request the EE-5 or DAR or both. Although DOE initially stated that departments cannot be correlated to building numbers, we have found some evidence in the DOE site profiles that is being vetted through the National Office.
The PM, 2-0700.6b(3), states that only material documents should be printed from the CD to the case file. Be careful about omitting documents. Our experience is that all of these categories of document share the potential to turn a case around!
Where are we in establishing exposure?

- Presence, Contact & Plausibility
  - SEM
  - DAR
  - OHQ/verified affidavits
  - DOE FWP/Building trades screening programs
  - Physician Panels
  - DOE Site Profiles
  - Other probative evidence

Occupational History Questionnaire (OHQ)

OHQ gives employee/survivor opportunity to discuss their work/health history:

- The purpose of the questionnaire is to obtain specific information about health history, work locations (including buildings/areas), job titles, the type of work they performed and what toxic substances they were exposed to (including significant exposure events), whether or not they wore protective equipment or clothing, etc.
- Must be evaluated in context with all of the other evidence in the file.

OHQ for DOE Facility
OHQ for Miners/Millers/Ore Transporter

NOTE: The act that created OSHA was not signed into Law until 1970; therefore, it is likely there was less protective equipment, practices, and clothing utilized prior to that date. Even after the implementation of OSHA, the enforcement was not consistent until years later.
In new cases, if appropriate, the RC will conduct this interview at the time of filing the claim.

In older cases, we have to make this assignment to RC.

- Be certain that referral is necessary; if DAR review & SEM allow for a positive finding, referral is not necessary.
- If DAR review & SEM are insufficient, then CE is to proceed w/ OHQ referral. (Must be in writing w/ EE-1/2 & EE-3 attached and be approved by Supervisor or Sr. CE.)
- You can request specific information be addressed during the OHQ (if you are looking for a specific exposure for example, you can ask the RC to inquire about the presence, contact, and duration of exposure)

In new cases, the RC should forward the OHQ to the District Office within seven (7) days.
When the OHQ is assigned to the RC, they have 14 days to complete the OHQ. When assigned to the RC, policy directs that the CE must “close out” the OHQ assignment (or follow-up or rework) by coding the DO-OH if the RC attempted to complete the OHQ, but was unsuccessful because the claimant could not be reached or refused to complete it.
The status effective date is the date of the RC memo to the DO explaining why the OHQ could not be completed.
Where are we in establishing exposure?

- Presence, Contact & Plausibility
  - SEM
  - DAR
  - OHQ/verified affidavits
  - **DOE FWP/Building trades screening programs**
  - Physician Panels
  - DOE Site Profiles
  - Other *probative* evidence
FWP Screening Profiles

- The Former Worker Program (FWP) is an ongoing program (established in 1994, implemented in 1996), designed to evaluate the effects of occupational exposures (i.e. beryllium, asbestos, silica) on the health of DOE workers. The Form EE-3 has a box for the claimant to check if the employee participated in the program.

- These records contain employment, medical, and exposure information; when we are aware that the employee participated in an FWP, we must attempt to obtain the records (if they are not already located on the Shared Drive at \Part E\Former Worker Program).

- The surveillance programs test individuals to screen for certain illnesses, but the findings do not necessarily constitute a diagnosis, unless the specific test result is accompanied by a physician’s interpretation (i.e. BeS established by a BeLPT).

FWP Screening Profiles, continued

- Exposure information obtained from FWP work history interviews prior to the enactment of the EEOICPA, October 2000, is considered factual.

- This information is often similar to the information provided in the OHQ, but may be more contemporaneous.

- However, exposure information obtained after October 2000, should be used only when corroborated by other evidence that supports the claimed exposure (i.e., DAR information, SEM). See Chapter PM 2-0300 for a full discussion on how to obtain and evaluate these records.
Where Are We In Establishing Exposure?

- Presence, Contact & Plausibility
  - SEM
  - DAR
  - OHQ/verified affidavits
  - DOE FWP/Building trades screening programs
  - Physician Panels
  - DOE Site Profiles
  - Other *probative* evidence
Physician Panels (Old Part D File)

Physician Panels (old Part D file)

- DOE physician panels can be an excellent source of medical, employment & exposure information.
- Only those findings officially approved by DOE (i.e., claimant letter signed by a DOE official) are given full credence when evaluating for causation.
- Negative and unofficial physician panel reports can contain valuable information that needs to be considered in the totality of the evidence.

Physician Panels (old Part D file), continued

If the employee died after the positive panel was issued, use caution. If the panel accepted a condition which does not appear on the death certificate, additional development is warranted (request medical at the time of the employee’s death & consider DMC/treating physician review).
Physician Panels Questions

Your Notes
Where are we in establishing exposure?

- Presence, Contact & Plausibility
  - SEM
  - DAR
  - OHQ/verified affidavits
  - DOE FWP/Building trades screening programs
  - Physician Panels
  - **DOE Site Profiles**
  - Other *probative* evidence

**Doe Site Profiles**

- Much of the data in SEM is derived from these profiles which were prepared by the DOE. The DOE profiles include information about:
  - Presence of toxic substances
  - Processes
  - Labor categories
  - Safety controls
  - Risk factors
  - Timeframes
DOE Site Profiles, continued

- Along with the profiles are the:
  - “Needs assessment summaries” prepared under the Former Worker Medical Surveillance Program
    - Production Workers
    - Construction Workers
  - NIOSH Site Profiles (cumulative report)
  - Environmental Safety & Health Practices

Although the data from the reports is uploaded into SEM, sometimes a review of these narrative summaries can provide the background information that helps put the data into context.

For example, language from the Oak Ridge profiles was useful for establishing the pervasiveness of asbestos exposure, making it much easier to accept a claim for an employee who might otherwise not be accepted (clerical/administrative/professional staff). DOE physician panels can be an excellent source of medical, employment and exposure information.

Only those findings officially approved by DOE (i.e., claimant letter signed by a DOE official) are given full credence when evaluating for causation.

Negative and unofficial physician panel reports can contain valuable information that needs to be considered in the totality of the evidence.

Many of these profiles are available on CD to load on your hard drive. They are located on the shared drive under Part E – DOE facility data.
Where are we in establishing exposure?

- Presence, Contact & Plausibility
  - SEM
  - DAR
  - OHQ/verified affidavits
  - DOE FWP/Building trades screening programs
  - Physician Panels
  - DOE Site Profiles
  - Other probative evidence

Other Probative Evidence

In terms of other probative evidence, the CE is looking for anything that can help place the employee in particular buildings or identify exposure incidents. This could include such things as:
Other Probative Evidence

- Anecdotal employee letters
- Newspaper articles
- Facility newsletters
- Performance evaluations
- Affidavits (co-workers affidavits tend to be more probative than spouses/family members, unless they worked with the employee)
- Photographs

Other probative evidence does not include:

- Information pulled from unauthorized internet sites
- Vague medical or exposure literature
Other Probative Evidence Questions

Your Notes
Where are we in establishing exposure?

- Presence, Contact & Plausibility
  - SEM
  - DAR
  - OHQ/verified affidavits
  - DOE FWP/Building trades screening programs
  - Physician Panels
  - DOE Site Profiles
  - Other probative evidence

Further Evaluation

- Sometimes the determination of presence and contact requires further evaluation.
  - For instance, the condition is related to a particular toxic substance, and the toxic substance is reported at the facility, but the available resources do not establish that the employee’s labor category would have sustained an exposure.
  - Or the claimant provides evidence that a synergistic or additive effect occurred between radiation and chemical exposures, between different types of chemicals, or between chemicals and noise, resulting in cancer or some other illness.
  - Or the claimant provides evidence that an illness is causally related to an exposure not supported by the SEM.
  - In each of these instances, a referral to one of the National Office "specialists" would be initiated.
Your Notes
National Office (NO) Specialists

Types of National Office Specialists

- Industrial Hygienist (IH)
  - Assists with determining type, duration, and route of exposure;
  - Assists with interpreting incident and monitoring records
- Health Physicist (HP)
  - Addresses synergistic/additive effects (caution!)
- Toxicologist
  - Evaluates health effects/mechanisms of toxic substances (in other words, helps establish a connection between a claimed condition and an exposure)

The function of the specialist is to assist in making all of these determinations, but not to address the link between the exposure and whether it was a significant factor in causing, contributing to, or aggravating the employee’s illness or death.

Currently, DOL has not found scientific evidence to date establishing a synergistic or additive effect between radiation and exposure to a toxic substance, and if the physician presents this finding he or she must provide actual scientific or medical research evidence to support the finding before the CE may consider the assertion.

Do not apply this standard to non-cancer cases.
Referrals to the National Office

Prior to referral, CE must *exhaust all reasonable exposure development* using the tools & guidance previously discussed.

CE must submit referral to supervisor for review/approval; thereafter CE will submit referral to the National Office through Health Services Program Analyst (Jewel Pearson). HSPA will determine to which specialist the referral will be directed.

The District Director needs to be copied on all referrals submitted to the National Office.
Information Necessary for IH Referrals

All of the following information is necessary for the IH to evaluate the potential route of exposure, frequency and duration:

<table>
<thead>
<tr>
<th>Information Necessary for IH Referrals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal data (employee’s full name, date of birth (&amp; date of death, if applicable), social security number)</td>
</tr>
<tr>
<td>Verified periods of employment, including the facility, timelines, and work locations</td>
</tr>
<tr>
<td>Job Descriptions – be as detailed as possible (i.e., for a welder, try to determine the types of welding material &amp; equipment used and the processes involved)</td>
</tr>
<tr>
<td>Duties/tasks – details regarding the job (did the employee do more surface prep than actual welding)</td>
</tr>
<tr>
<td>Personal Protective Equipment – address whether the records reflect whether the employee wore PPE (this may indicate the presence of a hazard and suggest a degree of exposure)</td>
</tr>
</tbody>
</table>

Information Necessary for IH Referral, continued

<table>
<thead>
<tr>
<th>Information Necessary for IH Referral, continued</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosed medical conditions (w/ ICD-9 codes)</td>
</tr>
<tr>
<td>Covered employment exposure data (culled from all sources previously described)</td>
</tr>
<tr>
<td>Any other pertinent exposure data</td>
</tr>
<tr>
<td>All of this information is necessary for the IH to evaluate the potential route of exposure, frequency &amp; duration.</td>
</tr>
</tbody>
</table>
Types of Questions

- Specialist referrals must ask specific questions. For example, an IH referral might include the following inquiries:
  - Given the nature of the employee’s job and the types of exposures linked to her condition in SEM, could any of those toxins have been present at her job site? (List specific toxic materials)
  - How did the employee come into contact with the toxic substance as a result of her job? (specific toxins)
  - What was the probable extent and duration of her exposure?
  - Is it acceptable to use an alternative job title/labor category?
Conclusion

- The CE establishes exposure based on a cumulative collection and review of all the available evidence.
- The next step after establishing exposure is addressing the impact of that exposure.
- In other words, was work related exposure during covered employment “at least as likely as not” a significant factor in causing, contributing to, or aggravating the employee’s illness or death ("causation").

Questions
Exposure Questions:

1. True or False? SEM can be used as the sole basis for a denial.
   Answer: 

2. True or False? SEM can be used to accept a claim in limited circumstances.
   Answer: 

3. True or False? Exposure by itself is not enough to establish causation (be prepared to explain your answer).
   Answer: 

4. Multiple Choice - Exposure is a function of:
   a. Route
   b. Duration
   c. Frequency
   Answer: 

5. Multiple Choice - The purpose of the OHQ is used to:
   a. Identify all exposures.
   b. Obtain specific information about the employee’s health and work history.
   c. Verify employment
   Answer: 

6. MULTIPLE CHOICE: Probative evidence can consist of:
   a. SEM, DAR, & OHQ
   b. Anything submitted by the claimant, including internet articles
   c. DOE Site Profiles, records from FWP, & DOE physician panels.

   Answer:

7. How can a worker be exposed?

   Answer:

8. What are some reasons the employee may not have been monitored for exposures?
9. Does the lack of monitoring records mean that an employee did not sustain significant exposure?

10. If a condition is known to arise from occupational exposures (based on the SEM), but exposures have not been established (based on a review of the DOE records and SEM), then should the claim be denied?

Answer:
Exposure Questions

11. True or False? SEM can be used as the sole basis for a denial.
Answer: False. SEM should never be used as the sole basis to deny a claim.

12. True or False? SEM can be used to accept a claim in limited circumstances.
Answer: True, see procedural guidance - PM 2-0700 8.

13. True or False? Exposure by itself is not enough to establish causation (be prepared to explain your answer).
Answer: True! Any substance can be toxic depending on the dose; remember our water analogy (wet vs. drowning).

14. Multiple Choice - Exposure is a function of:
   a. Route
   b. Duration
   c. Frequency
Answer: All of the above!

15. Multiple Choice - The purpose of the OHQ is used to:
   a. Identify all exposures.
   b. Obtain specific information about the employee’s health and work history.
   c. Verify employment
Answer: B.
16. MULTIPLE CHOICE: Probative evidence can consist of:

a. SEM, DAR, & OHQ
b. Anything submitted by the claimant, including internet articles
c. DOE Site Profiles, records from FWP, & DOE physician panels.

Answer: A & C

17. How can a worker be exposed?

Answer:

- Inhalation (breathing)
- Absorption (through the skin, eyes, mucous membranes)
- Ingestion
- Injection (e.g., being cut with contaminated material)

18. What are some reasons the employee may not have been monitored for exposures?

Answer:

Based on his labor category, it is possible that monitoring was determined not to be necessary, or the potential exposures were comparatively light.

19. Does the lack of monitoring records mean that an employee did not sustain significant exposure?

Answer: No, the absence of these records only means the employee wasn’t monitored. But we know, (referring back to slides 28 - 30), although numerous employees were not monitored for exposures (based on their labor categories), significant exposures could have occurred. For instance, bystander exposures to asbestos or welding/soldering fumes could cause chronic respiratory conditions. The key is to evaluate whether the condition is one known to arise from occupational exposures.

20. If a condition is known to arise from occupational exposures (based on the SEM), but exposures have not been established (based on a review of the DOE records and SEM), then should the claim be denied?

Answer: Some situations may require a referral to industrial hygienist to determine the route, duration, and frequency of exposures.
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Meaning</th>
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<tbody>
<tr>
<td>AADEP</td>
<td>American Academy of Disability Evaluating Physicians</td>
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<tr>
<td>AAW</td>
<td>Average Annual Wage</td>
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<tr>
<td>ABIME</td>
<td>American Board of Independent Medical Examiners</td>
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<td>ACS</td>
<td>Affiliated Computer Services (current medical bill pay contractor)</td>
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<tr>
<td>ADL</td>
<td>Activities of Daily Living</td>
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<td>ADP</td>
<td>Automated Data Processing</td>
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<td>AEC</td>
<td>Atomic Energy Commission</td>
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<td>American Medical Association’s Guides to the Evaluation of Permanent Impairment</td>
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<td>ANRSD</td>
<td>Amended NIOSH Referral Summary Document</td>
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<td>ARLD</td>
<td>Asbestos Related Lung Disease</td>
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<td>Atomic Weapons Employer</td>
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<td>BAL</td>
<td>Bronchoalveolar Lavage</td>
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<td>Be</td>
<td>Beryllium</td>
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<td>BeS</td>
<td>Beryllium Sensitivity</td>
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<td>Claims Examiner who can work on cases assigned to the Final Adjudication Branch</td>
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<td>CFR</td>
<td>Code of Federal Regulations</td>
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<td>CLL</td>
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<td>Division of Energy Employees Occupational Illness Compensation</td>
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<td>Acronym</td>
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Evaluation Form

We value your opinion. Please rate the following:

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Which topics were most beneficial to you?

Which topics were least beneficial to you?
Other comments or suggestions for improvement:

Name (optional): ________________________________ Date: ____________________