



# Site Exposure Matrices (SEM)

## Presenters

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# What is the SEM?

- A searchable database of facility-specific inventories of toxic substances used during production of atomic weapons
  - Informed by historical documentation describing operations occurring at facility – updated frequently
- Relational search feature to identify potential toxic substances employees encountered during their work

- Filtering search criteria:

Site

Health Effects

Buildings

Incidents

Direct Disease Linked

Work Process

Labor Category

Toxic Substance

Work Process

Area



# Importance of SEM

- Source of reliable data on toxic substances (chemical & biological) linked to a claimed illness or work factor
  - DOL developed and supported this tool to assist examiners and claimants with site specific information in order to promote a positive outcome whenever possible
  - Publically available for transparency, and to support claimants and their physicians in writing medical opinions on causation
- Assists in establishing the factual framework of an employee's likely toxic substance exposure profile in absence of specific industrial hygiene or monitoring data
- Used in collaboration with other case evidence collected during development including employment records, occupational history interview and other claimant submitted information
- Provides basis for profiling toxic substances that a physician needs to consider for establishing causal relationship (Link between disease and toxic substance exposure)



# SEM Usage Practices

- Educate yourself – From DEEOIC Main Web Page:
  - Site Exposure Matrix – SEM Training
  - EEOICPA Procedure Manual – Chapter 15 (Section 7, 8 & Exhibit 15-04)
- Searches must reasonably connect unique features of claim information to SEM data filters
- Use different search criteria to make connections between employment factors and toxic substances
- Important SEM concepts –

Search Aliases Specific is better No temporal toxic data	Apply Secondary Filters Level of exposure not in SEM Illnesses scientifically linked to exposure are in SEM
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# SEM DEMO – Search Example

- Relevant Employee Data:
  - Worked at Savannah River Site in South Carolina
  - Describes his work as a “welder” from 1972 to 1992
  - Diagnosed with Chronic Obstructive Pulmonary Disease
  - Occupational history interview describes the worker as having performed a variety of welding activities in different areas at the site, but spend a lot of time in a “laboratory”
  - 02/01/1988 medical incident report from Savannah River identifies the employee suffering a burn while welding metal parts in the “773 Lab”
  
- SEM filters:
  - Site: Savannah River
  - Health Effect: Chronic Obstructive Pulmonary Disease
  - Labor Category: Welder
  - Building Location: 773 Lab



# SEM Website

[www.sem.dol.gov](http://www.sem.dol.gov)



# Questions



Questions can also be submitted to [DEEOIC-Outreach@dol.gov](mailto:DEEOIC-Outreach@dol.gov)

Thank you very much for attending the DEEOIC Webinar