# U.S. Department of Labor

Discussion about the Site Exposure Matrices (SEM) and the assistance it delivers during case adjudication

Presented by John Vance and David Reinhart

# Presentation Overview

- Part E Claim Adjudication Process Overview
- What is the Site Exposure Matrix (SEM)?
- SEM-Claim Adjudication Process Integration
- SEM Demonstration
- Q & A

# Part E Adjudication Requirements

- Obtain diagnosis of claimed condition(s)

- Verify covered contractor/subcontractor employment at a Department of Energy facility or RECA Section 5 mine or mill

- Establish exposure to biological, chemical or radioactive material (Toxic Substance)

- Document how exposure resulted in employee illness and/or death

  - Presumptive standard satisfied

  - Opinion of a qualified physician

# Why Was SEM Created?

- Although DOL was not statutorily required to develop SEM it did for the following reasons:
  - DOL recognized that it was difficult for employee claimants and their survivors to identify the likely toxins that they may have been exposed to years ago without a tool or database to assist them.
  - In order to write a well rationalized medical opinion about the likelihood that an occupational toxic exposure caused, contributed to or aggravated a claimed condition, physicians needed better information about likely toxic exposures.
  - DOL Claims Examiners needed a source of toxic exposure information that indicated toxins common to locations and work processes and the known health effects associated to those toxins to assist them in weighing and understanding evidence submitted.

# Source of Toxic Substance Data

- SEM is a DOL developed and maintained database inventory of toxic substances used during atomic weapons production at facilities around the United States

- Two versions –
  - Internal version available to Claims Adjudication Staff
  - Public version updated every six months

- Contains thousands of toxins – categorized by facility – and subcategories

- SEM is maintained by a DOL contractor that employs subject matter experts responsible for data management

# SEM Importance to Claim Process

- Identifies toxic substances with a known humanistic health effect
- Assists to build factual framework of employee's toxic substance exposure profile in absence of employee specific industrial hygiene or monitoring data
  - Identifies toxic substances that an employee _potentially_ encountered during work
  - Expedites claims process
  - Serves to prioritize and focus development to those toxic substances most likely related to claimed illness
  - Facilitates claimant/physician involvement in exposure screening process
  - Reliable source of health effect and exposure data  - obtained from site-specific data

# Data Collection & Analysis

- SEM is <u>ONE</u> source of information used to establish employee exposure to toxic substances – it is not a decision-making tool

- Employee specific data is cross-referenced to SEM filtering criteria to produce search results

  - Comparative analysis relies on information from EE-3 Employment History, Occupational History Questionnaire and documentation from employment or other claim records

- Analysis objective - accurately identify the candidate toxic substances a physician may use to inform a causation opinion

# Usage Considerations

- Customize search criteria to employee work history
- Filters based on information reported by employee – or contained in case record
- Must apply different filters aligned to employee evidence to produce reliable result
- Broad search criteria are not useful

- Exposure based on presence of toxic substance during facility life cycle not tied to a specific time
- No data on extent/level/frequency of exposure – just potential contact to a toxic substance
- Lack of SEM data does not mean no exposure – other reliable sources of evidence may exist
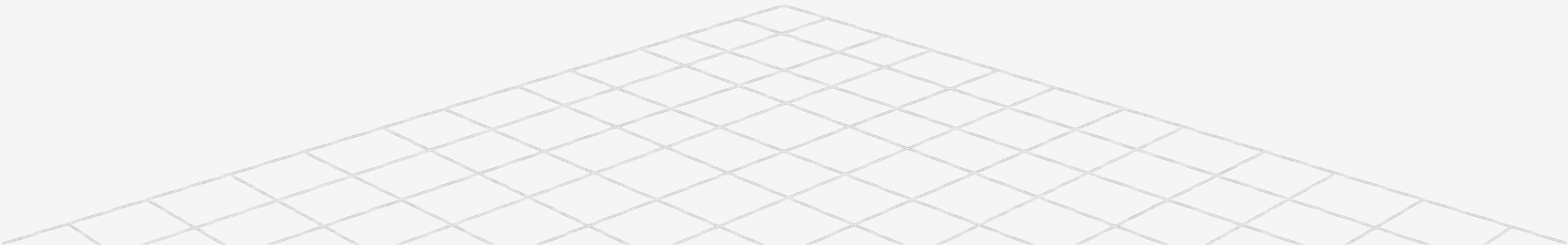
# Putting Outputs to Work

- Completion of Exposure Worksheet
    - Internal document for summarizing exposure analysis factors
    - Identifies the prioritized toxic substances for further examination
    - Requires check of established exposure or causation presumptive standards
- Referral to an Industrial Hygienist (IH)
    - Evaluation of the toxic substance associated to the employee for the purpose of obtaining further refinement of extent, nature and frequency of exposure.
    - IH profile establishes an accurate characterization of exposure based on available monitoring data or application of subject matter expertise
- Physician Opinion – Causation
    - Qualified physician, accurately informed by the exposures sustained by the employee, concludes that the exposure was at least as likely as not a significant factor in causing, contributing to or aggravating the claimed condition
    - Well-rationalized opinion may originate from a claimant chosen physician or a Contract Medical Consultant used by the DOL.

# Ready To Use SEM?

# [www.sem.dol.gov](www.sem.dol.gov)

# SEM Search Demonstration

- 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 spent a lot of time in a "laboratory."
  - 02/01/1988 medical incident report from Savanah 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 (Determine main or sub contractor before doing the search)

  Building Location:  773 Lab

# Helpful Information

- Explore for yourself at your own pace – From DEEOIC Main Web Page:

  - https://www.dol.gov/agencies/owcp/energy

    - Site Exposure Matrix – SEM Training
    - EEOICPA Procedure Manual – Chapter 15 (Section 7, 8 & Exhibit 15-04)

# Questions?