DEEOIC Claims Examiner Training Course

Chronic Beryllium Disease and Beryllium Sensitivity

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

Table of Contents

Session Description

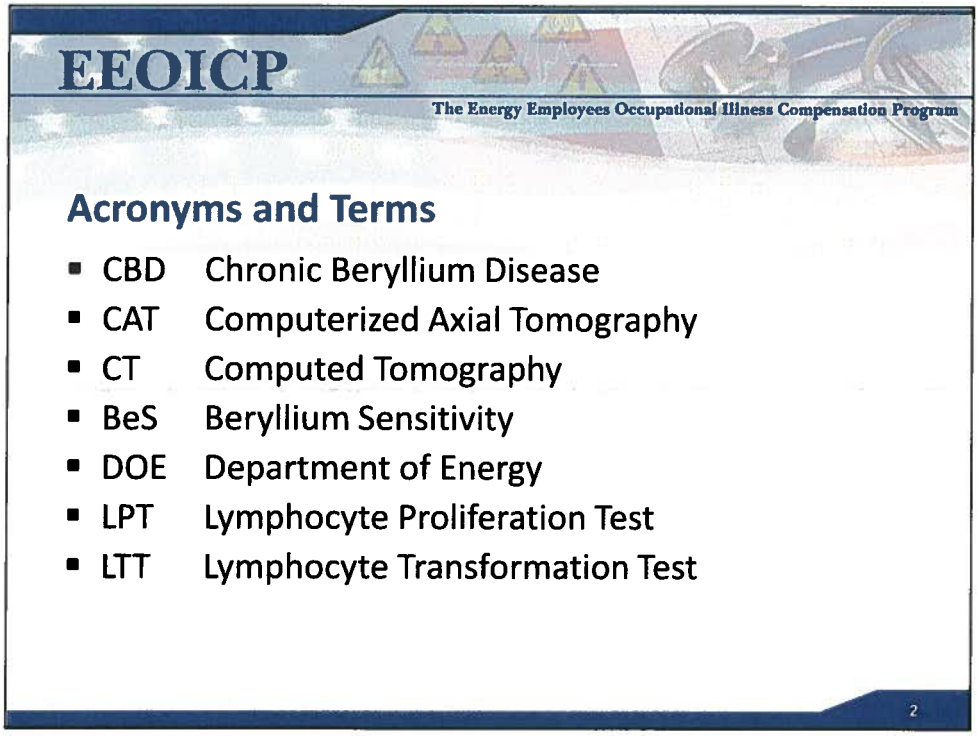
This session focuses on beryllium, specifically chronic beryllium disease (CBD) and beryllium sensitivity (BeS). Definitions, eligibility criteria and medical diagnosis/medical documentation required to support the claim are addressed in this session.

Instructional Objectives

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

- Explain the difference between beryllium sensitivity and chronic beryllium disease (CBD)
- Describe the eligibility requirements under Part B and Part E for CBD
- Explain the difference between pre-1993 and post-1993 statutory requirements for CBD
- Explain how to determine which statutory requirement applies to the claim
- Describe the CBD gold standard

Acronyms and Terms



Beryllium

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Beryllium is...

- A strong, lightweight metal used in manufacturing atomic weapons
- Also used in other industrial applications, ranging from battery contacts to jet engines
- The dangers of working with beryllium were initially unknown
- Later discovered that inhaling beryllium dust, particles or fumes could have serious health consequences

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Beryllium Doesn't Make Everyone Sick

- Most people who are exposed to beryllium will not develop a medical problem
- Some people develop immunological responses to beryllium in their lungs, which is called beryllium sensitivity (BeS)
- Usually BeS does not produce symptoms, but a person sensitized to beryllium is at significant risk of developing chronic beryllium disease (CBD)
- A single exposure to beryllium dust, particles or fumes is enough to sensitize a person to beryllium

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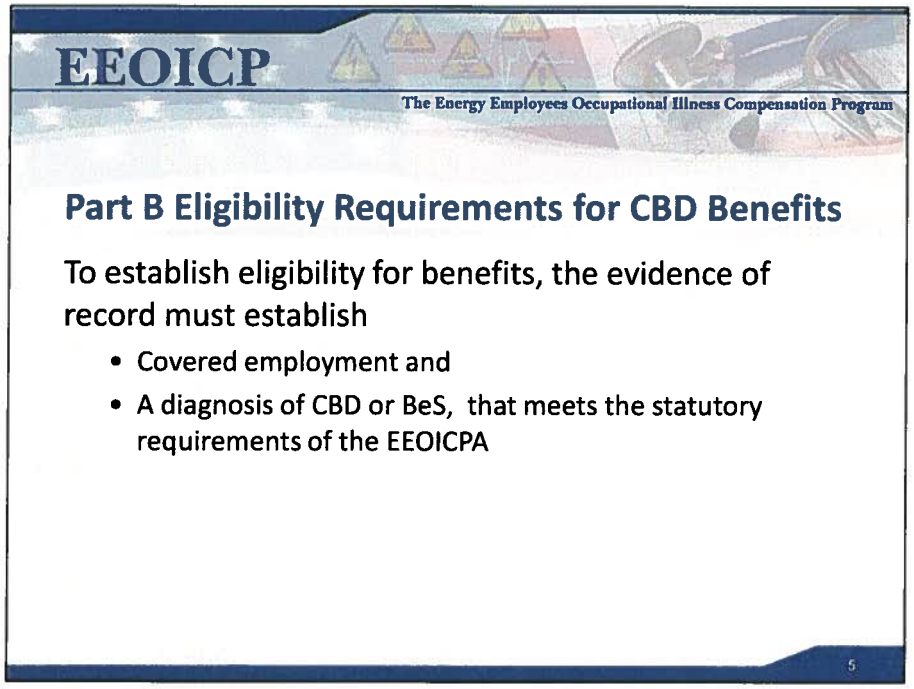
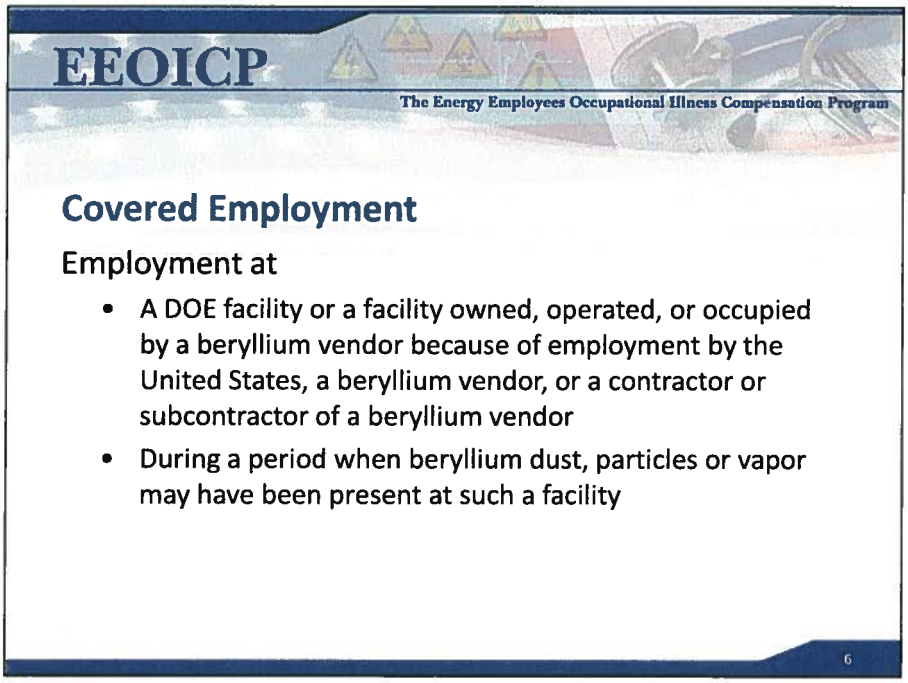
Your Notes

Part B Eligibility Requirements for CBD Benefits





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Covered Employment, continued

- If employment was outside of covered time frame and employee submits probative evidence to the substantiate his/her employment, DEEOIC may ask the DOE to provide additional evidence that may support enlarging the covered time period.
- If employment at a non-covered facility, DEEOIC will deny the claim under Part B and Part E because the facility is not a covered facility.

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Was Beryllium Present at the Facility?

The following resources provide information on whether beryllium was present at a facility:

(1) DOE facility database of covered facilities - **http://www.hss.energy.gov/HealthSafety/FWSP/Advocacy/faclist/findfacility.cfm**

(2) Site Exposure Matrices (SEM)

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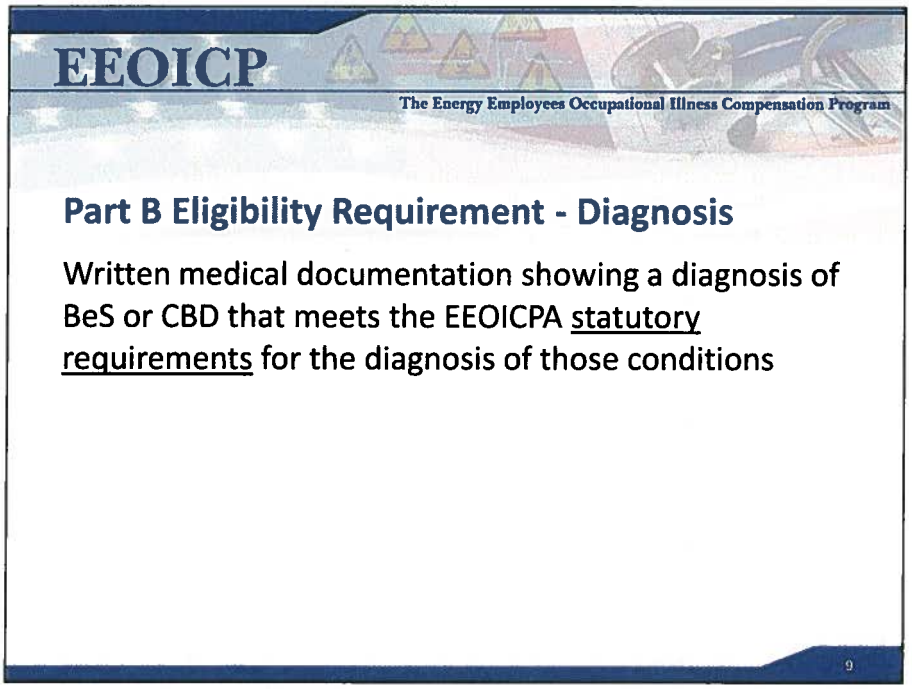
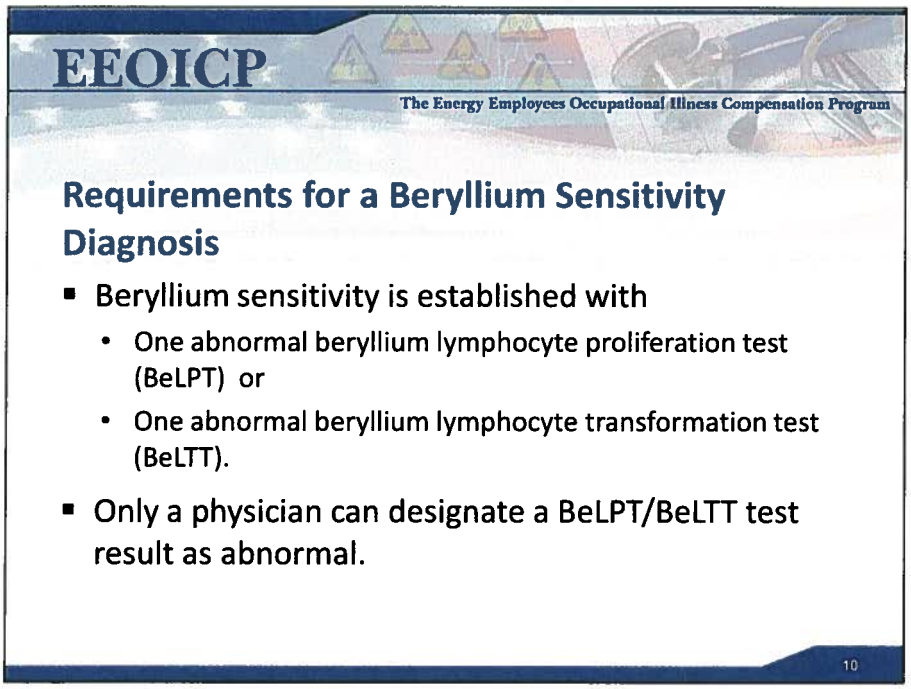
Your Notes

Medical Diagnosis





Chronic Beryllium Disease (CBD) Medical Requirements

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How Does CBD Develop?

Exposed individuals develop an immune response to beryllium:

1. Inhalation of beryllium dust
2. Cells in the blood and lung proliferate (BeLPT)
3. Inflammatory response is initiated
4. Granulomas develop and eventually fibrosis

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Specific Requirements for a CBD Diagnosis

Chronic beryllium disease has two separate criteria for meeting the statutory diagnosis requirements:

- Pre-1993 Criteria – before BeLPT/BeLTT
- Post-1993 Criteria – after BeLPT/BeLTT
  - If the earliest dated document showing that the employee was either treated for, tested or diagnosed with a chronic respiratory disorder is dated prior to January 1, 1993, the pre-1993 CBD criteria may be used.
  - If the earliest dated document is dated after January 1, 1993, the post-1993 CBD criteria may be used.
  - If the employee sought treatment before 1993 and the document verifies that the treatment was performed prior to January 1, 1993, but the document is dated on or after January 1, 1993, the pre-1993 CBD criteria may be used.

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Your Notes

Pre-1993 and Post-1993 CDB Criteria

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Pre-1993 CBD Criteria

The medical documentation must include at least three of the following:

- Characteristic chest radiographic (or computed tomography (CT)) abnormalities
- Restrictive or obstructive lung physiology testing or diffusing lung capacity defect
- Lung pathology consistent with chronic beryllium disease
- A clinical course consistent with a chronic respiratory disorder
- Immunologic tests showing beryllium sensitivity (skin patch test or beryllium blood test preferred)
- a mediastinal lymph node biopsy interpreted by a physician indicating "lung pathology consistent with CBD"

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Post-1993 CBD Criteria

The medical documentation must include:

- An abnormal BeLPT/BeLTT and
- One or more of the following:
  1) Lung biopsy showing granuloma or a lymphocytic process consistent with CBD
  2) A computerized axial tomography (CAT) scan showing changes consistent with CBD
  3) Pulmonary function or exercise testing showing pulmonary deficits consistent with CBD
  4) a mediastinal lymph node biopsy interpreted by a physician indicating "lung pathology consistant with CBD"

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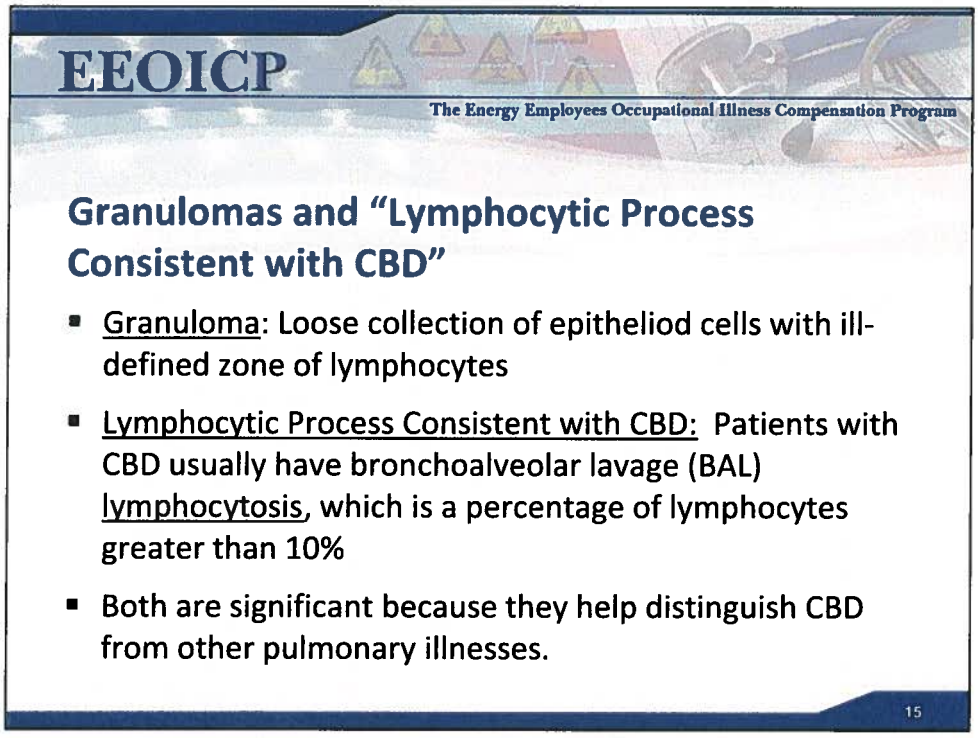
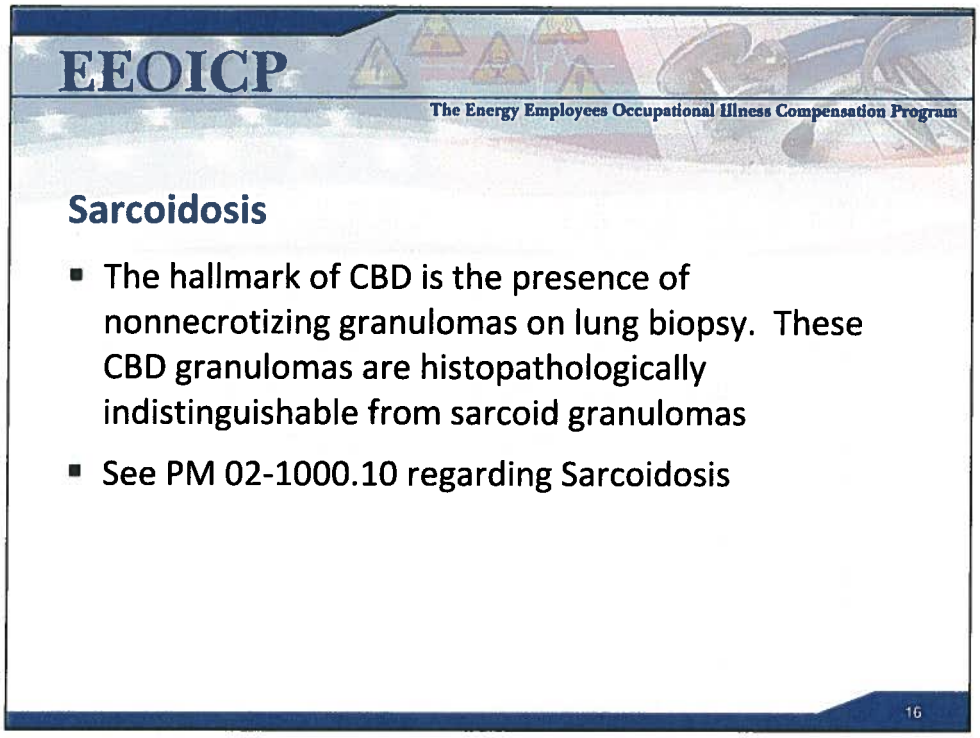
Your Notes

Granulomas and "Lymphocytic Process Consistent with CBD"



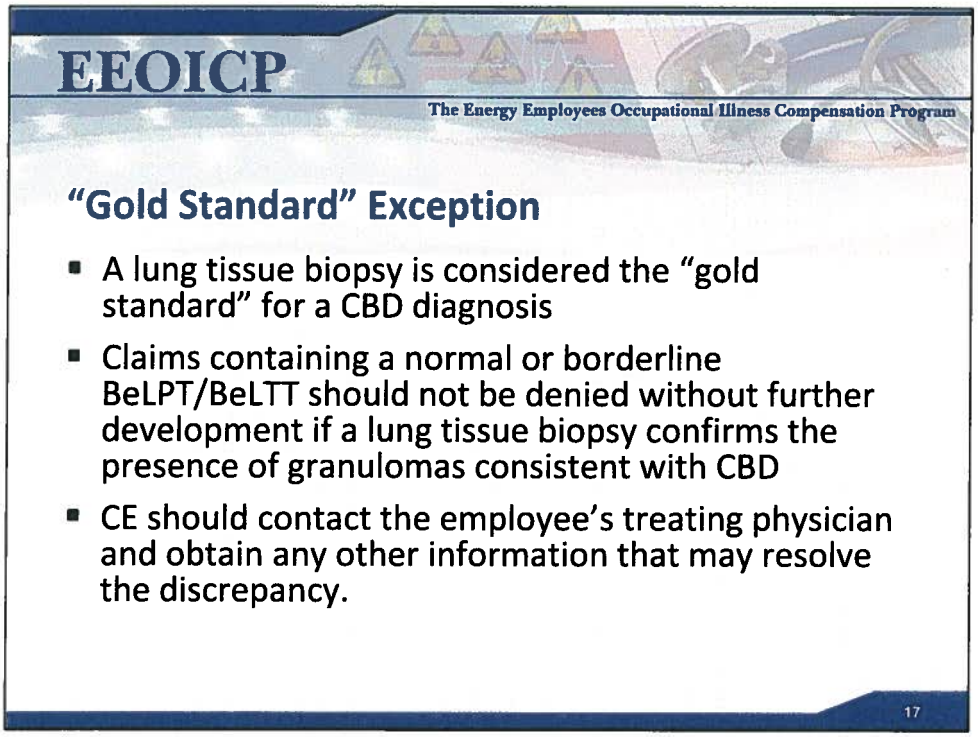
Your Notes

Sarcoidosis



Your Notes

"Gold Standard" Exception



Your Notes

Part E Eligibility Requirements for CBD Benefits

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Criteria for Part E

Part E only requires:

1) A diagnosis of CBD by a qualified physician;
2) Exposure to beryllium during at least one day of covered employment, and;
3) Sufficient evidence to establish "it is at least as likely as not" that exposure to beryllium during covered employment was a "significant factor in aggravating, contributing to, or causing the illness."

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Approving CBD under Part E

- It's possible to approve a CBD claim under Part E even if CBD cannot be approved under Part B.
- The Part B statutory requirements need not be present.
- However, the CE should exhaust all avenues to obtain the statutory medical evidence needed for a Part B acceptance before denying CBD under Part B and accepting CBD under Part E.

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Your Notes

Beryllium Vendors and Beryllium Vendor Facilities

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Beryllium Vendors and Beryllium Vendor Facilities

- Atomics International
- Brush Wellman, Incorporated, and its predecessor, Brush Beryllium Company
- General Atomics
- General Electric Company
- NGK Metals Corporation and its predecessors, Kawecki-Berylco, Cabot Corporation, BerylCo, and Beryllium Corporation of America

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Beryllium Vendors and Beryllium Vendor Facilities, continued

- Nuclear Materials and Equipment Corporation.
- StartMet Corporation and its predecessor, Nuclear Materials, Inc.
- Wyman Gordon, Inc.
- Any other vendor, processor, or producer of beryllium or related products designated as a beryllium vendor for purposes of the EEOICPA

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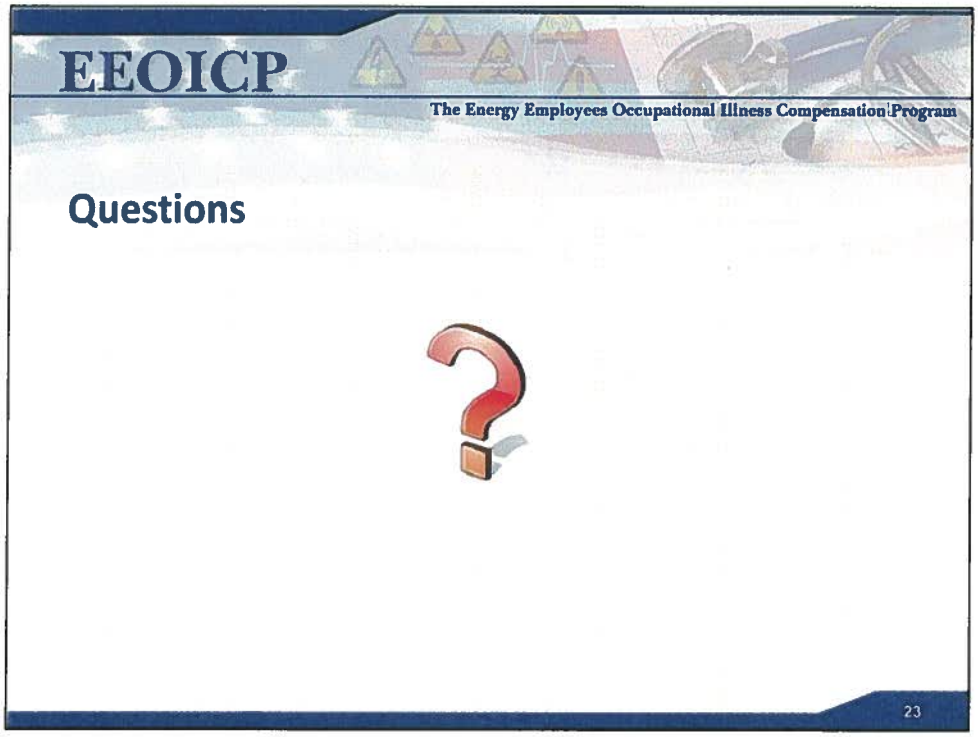
Your Notes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Questions
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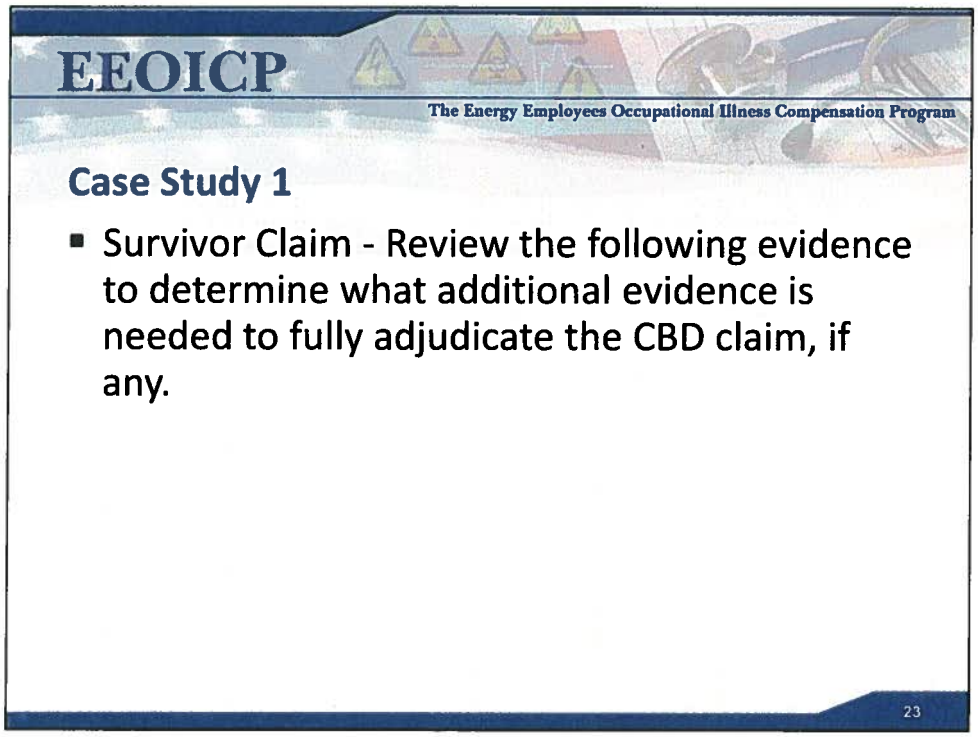
Case Study 1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The Energy Employees Occupational Illness Compensation Program
Case Study 1
Survivor Claim - Review the following evidence to determine what additional evidence is needed to fully adjudicate the CBD claim, if any.
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EE-2

Claim for Survivor Benefits Under the Energy Employees Occupational Illness Compensation Program Act

U.S. Department of Labor
Employment Standards Administration
Office of Workers' Compensation Programs

Note: Provide all information requested below. Do not write in the shaded areas. Submit | Reset | Print

OMB Number: 1215-0197
Expiration Date: 08/31/2010

Deceased Employee Information (Please Print Clearly)

1. Name (Last, First, Middle Initial)	2. Sex	3. Social Security Number
	☒ Male ☐ Female	

4. Date of Birth (Month / Day / Year)	5. Date of Death (Month / Day / Year)	6. Was an autopsy performed on the employee?
		☐ YES - List Medical Facility: ☒ NO ☐ DON'T KNOW

Survivor Information (Please Print Clearly)

7. Name (Last, First, Middle Initial)	8. Sex	9. Social Security Number
	☒ Male ☐ Female	000-00-0000

10. Date of Birth (Month / Day / Year)	11. Your relationship to the deceased employee
	☒ spouse ☐ child ☐ step child ☐ parent ☐ grandparent ☐ grandchild ☐ Other:

12. Address (Street, Apt. #, P.O. Box)	13. Telephone Numbers
	a. Home: ( ) -
(City, State, ZIP Code)	b. Other: ( ) -

14. Identify the Diagnosed Condition(s) Being Claimed as Work-Related (check box and list specific diagnosis)

	15. Date of Diagnosis (Month / Day / Year)
☐ Cancer (List Specific Diagnosis Below)	
a.	
b.	
c.	
☐ Beryllium Sensitivity	
☒ Chronic Beryllium Disease (CBD)	
☐ Chronic Silicosis	
☒ Other Work-Related Condition(s) due to exposure to toxic substances or radiation (List Specific Diagnosis Below)	
a. Chronic Obstructive Pulmonary Disease	01 / 17 / 1984
b.	
c.	

Awards and Other Information

16. Did the employee work at a location designated as a Special Exposure Cohort (SEC)?	☐ YES ☒ NO
17. Have you or the deceased employee filed a lawsuit seeking either money or medical coverage for the claimed condition(s)?	☐ YES ☒ NO
18. Have you or the deceased employee filed any workers' compensation claims in connection with the claimed condition(s)?	☐ YES ☒ NO
19. Have you, the deceased employee, or another person received a settlement or other award in connection with the above claimed condition(s)?	☐ YES ☒ NO
20. Have you either pled guilty or been convicted of any charges connected with an application for or receipt of federal or state workers' compensation?	☐ YES ☒ NO
21. Have you or the employee applied for an award under Section 5 of the Radiation Exposure Compensation Act (RECA)? If yes, provide RECA Claim #:	☐ YES ☒ NO
22. Have you or the employee applied for an award under Section 4 of the Radiation Exposure Compensation Act?	☐ YES ☒ NO

Form EE-2
April 2005

Next Page

EE-3

Employment History for a Claim Under the Energy Employees Occupational Illness Compensation Program Act

U.S. Department of Labor
Employment Standards Administration
Office of Workers' Compensation Programs

Note: Please provide as much information as possible. Do not write in the shaded areas.

OMB No. 1215-0197
Expiration Date:08/31/2010

Submit | Reset | Print

Employee's Information (Print clearly)

1. Employee's Name (Last, First, Middle Initial)	2. Former Name (e.g. Maiden/Legal Change)	3. Social Security Number (If known)

Contact Information for Person Completing this Form (Print clearly)

4. Name (Last, First, Middle Initial)	5. Claim Type (check one)
	☐ Employee ☒ Survivor
6. Address (Street, Apt. #, P.O. Box)	7. Telephone Number(s)
	a. Home: ( ) -
(City, State, ZIP Code)	b. Other: ( ) -

Employee's Work History (Provide as much information as known - If necessary attach a separate sheet)

In chronological order, ***starting with the most recent period of employment***, provide the complete work history of the employee named above. Provide as much identifying information as known concerning the name of the employer and location (city & state) where the employee performed the work. If you require additional space to explain or clarify a point, attach a signed supplemental statement to this form.

Employer - 1

Start Date: 02 (Month) 08 (Day) 1955 (Year) End Date: 10 (Month) 01 (Day) 1986 (Year)

Work Schedule (check one): ☒ Full-time ☐ Part-time

Facility Name (spell out name)	Specific Location (building/site/mine/mill)	City/State where worked performed
Kansas City Plant		Kansas City, Missouri

Contractor/sub-contractor or Vendor name(s): Allied Bendix Aerospace / Bendix KC Division

Type of Facility/Employer (check one):
☒ - Department of Energy Facility ☐ - Beryllium Vendor ☐ - Unknown
☐ - Atomic Weapons Facility ☐ - Uranium Miner/Miller/Transporter

Position Title or Mine/Mill Activity: Storekeeper/Safety Crib

Was a dosimetry badge worn while employed? ☐ YES ☐ NO ☒ Unknown

Work Identification Number:

If known, provide the Dosimetry Badge Number:

Description of Work Duties (Describe in detail)

Issued glasses and shoes - collected and sorted laundry- delivered back to the departments. Most of his job duties were "classified". This is all I know

Describe or list the work conditions/exposures you believe caused or contributed to the claimed work illness(es) at this facility

Laundry could have been contaminated. To my knowledge Doyle was not issued or required to wear space clothing while performance her assigned duties

Indicate whether the employee participated in any employer health programs or unions at this facility (check all that apply)

☐ Former Worker Program (PWP) ☐ Radiation Exposure Screening and Education Program (RESEP) ☐ Other Medical Study
☐ Other Medical Surveillance Program ☐ Union Member ☐ Other (specify):

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Form EE-3
April 2005

Doctor's Report

Saint Luke's
Medical Group
SAINT LUKE'S HEALTH SYSTEM

SAINT LUKE'S SOUTH
PRIMARY CARE

March 4, 2003

Re: John Claimant
DOB 01/12/1946

To Whom It May Concern:

The aforementioned individual was under my care until his death in 1990. I began taking care of Mr. Claimant in 1985 and at that time, he was noted to have significant chronic obstructive pulmonary disease. The patient had x-ray findings of which a report is included in his previous records, consistent with COPD along with consistently reduced Wright peak flow readings to ½ - 1/3rd of the expected for a man his age and size. These are also documented in his previous records. The patient had a significant disability related to his COPD and ultimately died from complications thereof. The patient's overall courses indeed consistent with chronic beryllium disease

For more information, please refer to attached medical records.

Sincerely,

Michael L. Physician, M.D.

Michael L. Physician, M.D.

MLM/TTS/cdh

Enclosures

ENDOCRINOLOGY &
DIABETES

Jeffery D. Physician, M.D.

Death Certificate

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND – NOT A WHITE BACKGROUND

244000

Missouri Department of Health
Certificate of Death

FORM VS No 1-A

File #: 116 2008

098765

(rev. 5/02)

Decedent

1. Decedent's Name (First, Middle, Last)				2. Sex: Male	3. Date of Death (Month, Day, Year): April 4, 1990
4. Social Security No.: 000-00-0000	5a. Age Last Birthday: 59	5b. Under 1 year	6. Date of Birth: Dec. 30, 1930	7. Birthplace (City/State): Springfield, MO	
8. Was decedent ever in US armed services? ☒ Yes ☐ No	9a. Place of Death (check only one): Hospital Inpatient ☒ ER/Outpatient ☐ DOA ☐		Other: ☐ Nursing Home ☐ Residence ☐ Other (Specify)		
9. b Facility Name: St. Joseph Health Center		9c. City Town or location of death: Anytown		9d. County of Death: Graves	
10. Marital Status: Married	11. Surviving Spouse (If wife give maiden name)	12a. Decedent's occupation: Store Keeper		12b/ Kind of Business/Industry: Non-nuclear component	
13a. Residence – state: Missouri	13.b. County: Jackson	13 c. City, Town, or Location: Anytown		13d. Street and Number: 210 Main Street	
13e. Inside City limits ☒ Yes ☐ No	13f. Zip Code: 42000	14. Was decedent of Hispanic Origin? ☐ Yes ☒ No	15. Race American Indian, Black, White, etc. (specify): White	16. Decedent's Education (specify only highest grade completed): Elem/Sec (0-12): 12	College 1-4 or 5+

Parents

17. Father's Name (First, Middle, Last)

18. Mother's Name (First, Middle, Last): Grace Morris

Informant

19a. Informant's Name

19b. Mailing Address: 210 Main Street, Anytown, MO 64030

Disposition

20.a Method of Disposition: ☒ Burial ☐ Cremation ☐ Donation ☐ Removal from state ☐ Other (explain)	20b. Place of Disposition (Name of Cemetery, crem tory or other place): Anytown Memory Gardens	20.c. Location (City or Town): Anytown, MO

21a. Signature of Funeral Service Licensee

22. Name and Addresses of Facility

Certifier

To the best of my knowledge, death occurred at the time, date, place and due to the causes stated

Signature and Title: *Wayne E. Person*

23b. date signed (Month, Day, Year): 04/04/90

24. Name and address of Person who completed cause of death (Item 28): Wayne E. Person, MD 110 South 129th Street, Anytown, MO 62030

25 Time of Death: 7:40 AM	26 Date Pronounced Dead (Month, Day, Year): April 4, 1990	27. Was Case referred to Medical Examiner/Coroner? ☐ Yes ☒ No

Cause of Death

28. Part I. Enter the diseases, injuries, or complications that caused death. Do not enter the mode of dying, such as cardiac or respiratory arrest, shock, or heart failure. List only one cause on each line.

		Approximate interval between onset and death
IMMEDIATE CAUSE (Final disease or condition resulting in death)	a. acute respiratory failure, due to (or as a consequence of)	12 hours
Sequentially list conditions, if any, leading to immediate cause. Enter underlying Cause (Disease or injury that initiated events resulting in death)	b. Chronic Obstructive Pulmonary Disease, due to (or as a consequence of)	undetermined
	c. due to (or as a consequence of)	
	d.	

Part II. Other significant conditions contributed to death but not resulting in the underlying cause given in Part I. Pneumothorax Cardiac Arrhythmia	28 a. If female, was there a pregnancy in the past 12 mos? ☐ Yes ☐ No	28b. Was an autopsy performed? ☐ Yes ☒ No	28c. Were autopsy findings available prior to cause of death? ☐ Yes ☐ No
28d. Did the deceased have Diabetes? ☒ Yes ☐ No	28e. Was Diabetes an immediate, underlying or contributing cause of or condition leading to death? ☒ Yes ☐ No		

29. Manner of Death: ☒ Natural ☐ Pending Investigation ☐ Accident ☐ Suicide ☐ could not determine ☐ Homicide	30a. Date of Injury (Month, Day, Year)	30.b Time of Injury	30c Injury at work? ☐ Yes ☐ No	30d. Describe how injury occurred
	30 e Place of Injury – At home, farm, street, factory office building, etc. (Specify)	30f. Location (street and number, city or town)		

Registrar

31. Registrar's Signature: *Paul F. Robinson*

32. Date Filed (Month, Day, Year): April 4 1990

THE BACK OF THIS DOUCMENT CONTAINS AN ARTIFICIAL WATERMARK – HOLD AT AN ANGLE TO VIEW

DOE Facility List printout

Energy Employees Occupational Illness Compensation Program

Home | Health and Safety

Facility List

There was one record found for the facility: Kansas City Plant .

1 - Kansas City Plant

State: Missouri **Location:** Kansas City
Time Period: 1949-present
Facility Type: Department of Energy

Facility Description: The Kansas City Plant was constructed in 1942 to build aircraft engines for the Navy. After World War II, it was used for storage. In 1949, the AEC asked the Bendix Corporation to take over part of the facility and it began manufacturing nonnuclear components for nuclear weapons. Electrical, electromechanical, mechanical, and plastic components are manufactured or procured by this facility.

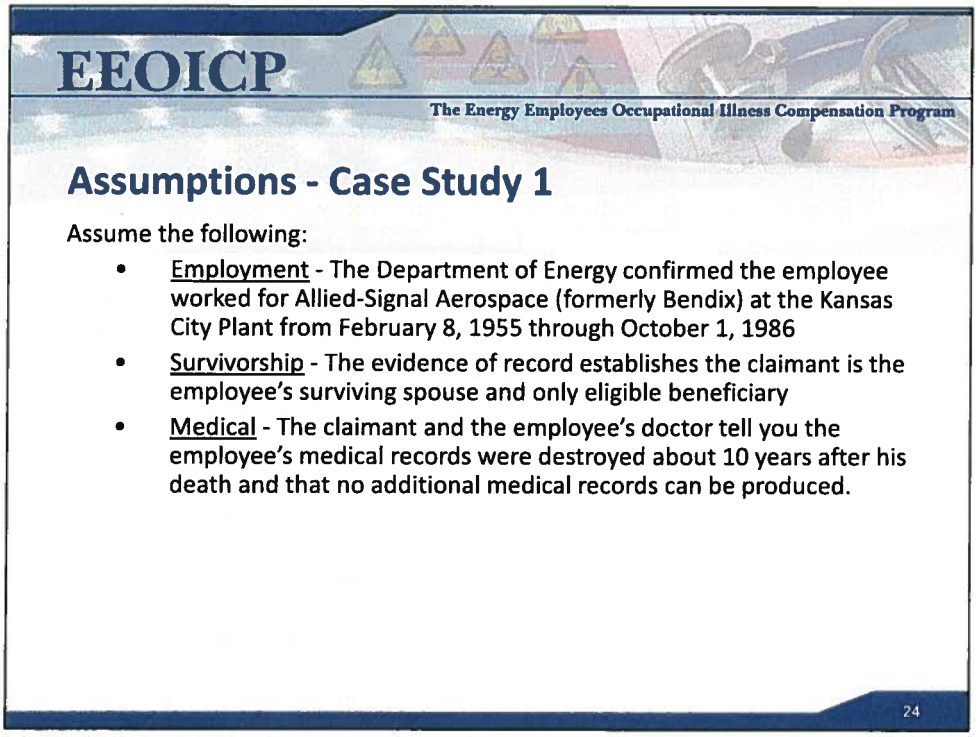
In 1993, the Department of Energy officially designated the Kansas City Plant as the consolidated site for all nonnuclear components for nuclear weapons.

As of 1996, production activities at the site were still occurring and expected to continue indefinitely.

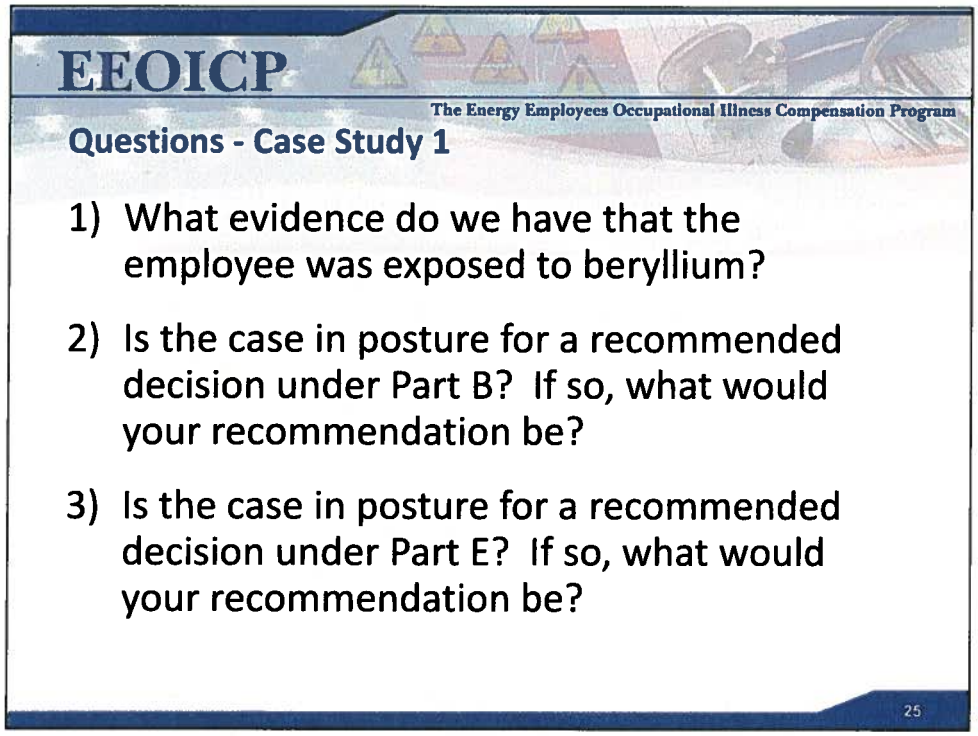
Throughout the course of its operations, the potential for beryllium exposure existed at this site, due to beryllium use, residual contamination, and decontamination activities.

CONTRACTORS: Honeywell FM&T (1999-present); Allied-Signal Aerospace (formerly Bendix) (1949-1999)

Case Study 1 Assumptions



Case Study 1 Questions



Answers

Your Answers

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Answers – Case Study 1

1) What evidence do we have that the employee was exposed to beryllium?

The DOE facility database shows the potential for beryllium exposure existed at the Kansas City Plant throughout the course of its operations

2) Is the case in posture for a recommended decision under Part B? If so, what would your recommendation be?

No, there is insufficient medical evidence to meet either the Pre-1993 or Post-1993 statutory requirements for CBD

3) Is the case in posture for a recommended decision under Part E? If so, what would your recommendation be?

Yes, accept the case under Part E because the employee was exposed to beryllium during covered employment, he was diagnosed with CBD by a physician, and it can be concluded CBD aggravated the employee's death because his death certificate indicates COPD was the cause of his death

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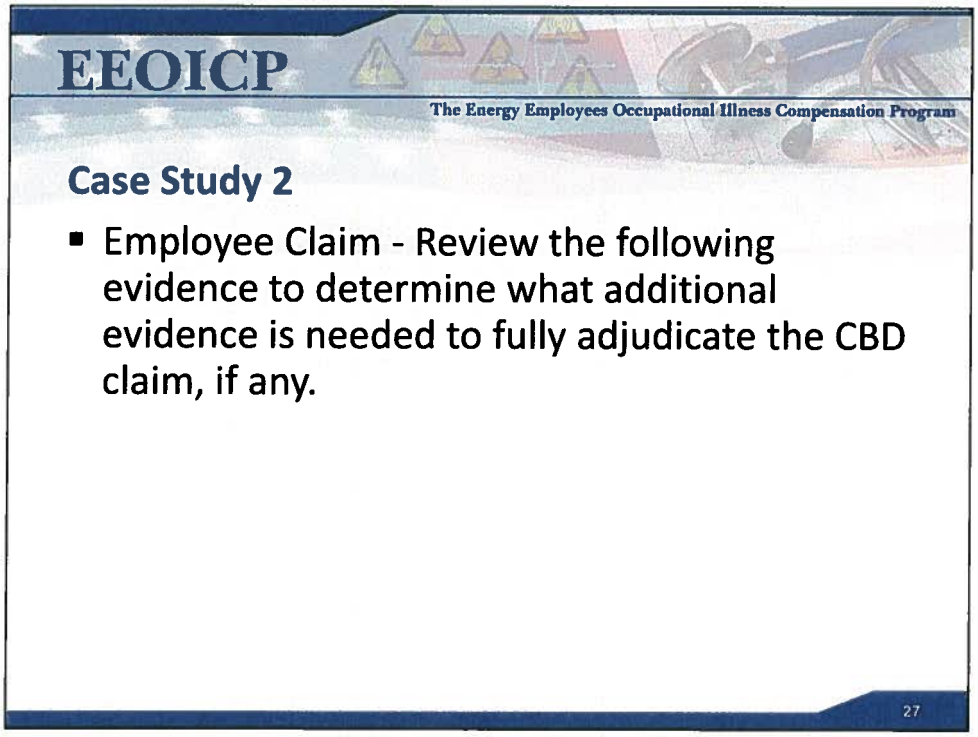
Your Notes

Case Study 2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The Energy Employees Occupational Illness Compensation Program
Case Study 2
Employee Claim - Review the following evidence to determine what additional evidence is needed to fully adjudicate the CBD claim, if any.
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EE 1

Claim for Benefits Under the Energy Employees Occupational Illness Compensation Program Act

U.S. Department of Labor
Employment Standards Administration
Office of Workers' Compensation Programs

Note: Provide all information requested below. Do not write in the shaded areas.

OMB Number: 1215-0197
Expiration Date: 08/31/2010

Employee Information (Please Print Clearly) Submit Reset Print

1. **Name** (Last, First, Middle Initial)
2. **Social Security Number**
3. **Date of Birth** Month Day Year
4. **Sex** ☐ Male ☐ Female
5. **Dependents** ☒ Spouse ☐ Children ☐ Other:
6. **Address** (Street, Apt. #, P.O. Box)
   (City, State, ZIP Code)
7. **Telephone Number(s)**
   a. Home: ( ) -
   b. Other: ( ) -

8. Identify the Diagnosed Condition(s) Being Claimed as Work-Related (check box and list specific diagnosis)

	9. Date of Diagnosis Month	Day	Year
☐ **Cancer** (List Specific Diagnosis Below)			
a.			
b.			
c.			
☐ **Beryllium Sensitivity**			
☒ **Chronic Beryllium Disease** (CBD)			
☐ **Chronic Silicosis**			
☐ **Other Work-Related Condition(s) due to exposure to toxic substances or radiation** (List Specific Diagnosis Below)			
a.			
b.			
c.			

Awards and Other Information

10. Did you work at a location designated as a Special Exposure Cohort (SEC)?	☒ YES ☐ NO
11. Have you filed a lawsuit seeking either money or medical coverage for the above claimed condition(s)?	☐ YES ☒ NO
12. Have you filed any workers' compensation claims in connection with the above claimed condition(s)	☐ YES ☒ NO
13. Have you or another person received a settlement or other award in connection with a lawsuit or workers' compensation claim for the above claimed condition(s)?	☐ YES ☒ NO
14. Have you either pled guilty or been convicted of any charges connected with an application for or receipt of federal or state workers' compensation?	☐ YES ☒ NO
15. Have you applied for an award under Section 5 of the Radiation Exposure Compensation Act (RECA)?	☐ YES ☒ NO
If yes, provide RECA Claim #:	
16. Have you applied for an award under Section 4 of the Radiation Exposure Compensation Act (RECA)?	☐ YES ☒ NO

Employee Declaration

Any person who knowingly makes any false statement, misrepresentation, concealment of fact, or any other act of fraud to obtain compensation as provided under EEOICPA or who knowingly accepts compensation to which that person is not entitled is subject to civil or administrative remedies as well as felony criminal prosecution and may, under appropriate criminal provisions, be punished by a fine or imprisonment or both. Any change to the information provided on this form once it is submitted must be reported immediately to the district office responsible for the administration of the claim. I hereby make a claim for benefits under EEOICPA and affirm that the information I have provided on this form is true. If applicable, I authorize the Department of Justice to release any requested information, including information related to my RECA claim, to the U.S. Department of Labor, Office of Workers' Compensation Programs (OWCP). Furthermore, I authorize any physician or hospital (or any other person, institution, corporation, or government agency, including the Social Security Administration) to furnish any desired information to the U.S. Department of Labor, Office of Workers' Compensation Programs.

Employee Signature

12/10/2007
Date

Resource Center Date Stamp

Form EE-1
April 2005

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EE 3

Employment History for a Claim Under the Energy Employees Occupational Illness Compensation Program Act

U.S. Department of Labor
Employment Standards Administration
Office of Workers' Compensation Programs

Note: Please provide as much information as possible. Do not write in the shaded areas.

OMB No. 1215-0197
Expiration Date:08/31/2010

Submit | Reset | Print

Employee's Information (Print clearly)

1. **Employee's Name** (Last, First, Middle Initial)
2. **Former Name** (e.g. Maiden/Legal Change)
3. **Social Security Number** (If known)

Contact Information for Person Completing this Form (Print clearly)

4. **Name** (Last, First, Middle Initial)
5. **Claim Type** (check one) ☒ Employee ☐ Survivor
6. **Address** (Street, Apt. #, P.O. Box)
7. **Telephone Number(s)**
   a. Home: ( ) -
   b. Other: ( ) -

(City, State, ZIP Code)

Employee's Work History (Provide as much information as known - if necessary attach a separate sheet)

In chronological order, ***starting with the most recent period of employment***, provide the complete work history of the employee named above. Provide as much identifying information as known concerning the name of the employer and location (city & state) where the employee performed the work. If you require additional space to explain or clarify a point, attach a signed supplemental statement to this form.

Employer - 1

Start Date: Month Day 1983 Year — End Date: Month Day 1985 Year

Work Schedule (check one): ☒ Full-time ☐ Part-time

Facility Name (spell out name): Rocky Flats Plant

Specific Location (building/site/mine/mill): Building 881; Research and Dev.

City/State where worked performed: Golden, Colorado

Contractor/sub-contractor or Vendor name(s): Rockwell

Type of Facility/Employer (check one)
☒ - Department of Energy Facility ☐ - Beryllium Vendor ☐ - Unknown
☐ - Atomic Weapons Facility ☐ - Uranium Miner/Miller/Transporter

Position Title or Mine/Mill Activity: Research Engineer

Was a dosimetry badge worn while employed? ☒ YES ☐ NO ☐ Unknown

Work Identification Number:

If known, provide the Dosimetry Badge Number: 502XXX

Description of Work Duties (Describe in detail)

Beryllium Weapon parts (Brazing machined parts of beryllium).

Describe or list the work conditions/exposures you believe caused or contributed to the claimed work illness(es) at this facility

Indicate whether the employee participated in any employer health programs or unions at this facility (check all that apply)

☐ Former Worker Program (FWP) ☐ Radiation Exposure Screening and Education Program (RESEP) ☐ Other Medical Study
☐ Other Medical Surveillance Program ☐ Union Member ☐ Other (specify):

Form EE-3
April 2005

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EE 3 PAGE 2

Employer - 2 Start Date: Month Day 1975 End Date: Month Day 1982 Work Schedule (check one): [X] Full-time [ ] Part-time

Facility Name (spell out name): Rocky Flats Plant	Specific Location (building/site/mine/mill): Building 776, Res. & Dev.	City/State where worked performed: Golden, Colorado
Contractor/sub-contractor or Vendor name(s): Rockwell	Type of Facility/Employer (check one): [X] Department of Energy Facility [ ] Atomic Weapons Facility [ ] Beryllium Vendor [ ] Uranium Miner/Miller/Transporter [ ] Unknown	
Position Title or Mine/Mill Activity: Res. Engineer; Dev. Specialist; Manufacturing Master Tech.	Was a dosimetry badge worn while employed? [X] YES [ ] NO [ ] Unknown	
Work Identification Number:	If known, provide the Dosimetry Badge Number: 502XXX	

Description of Work Duties (Describe in detail): Weapon Parts of Beryllium - cut samples

Describe or list the work conditions/exposures you believe caused or contributed to the claimed work illness(es) at this facility

Indicate whether the employee participated in any employer health programs or unions at this facility (check all that apply)
[ ] Former Worker Program (FWP) [ ] Radiation Exposure Screening and Education Program (RESEP) [ ] Other Medical Study
[ ] Other Medical Surveillance Program [ ] Union Member [ ] Other (specify):

Employer - 3 Start Date: Month Day 1967 End Date: Month Day 1974 Work Schedule (check one): [X] Full-time [ ] Part-time

Facility Name (spell out name): Rocky Flats Plant	Specific Location (building/site/mine/mill): Building 777 and 771	City/State where worked performed: Golden, Colorado
Contractor/sub-contractor or Vendor name(s): Dow Chemical	Type of Facility/Employer (check one): [X] Department of Energy Facility [ ] Atomic Weapons Facility [ ] Beryllium Vendor [ ] Uranium Miner/Miller/Transporter [ ] Unknown	
Position Title or Mine/Mill Activity: Manufacturing Master Technician	Was a dosimetry badge worn while employed? [ ] YES [ ] NO [ ] Unknown	
Work Identification Number:	If known, provide the Dosimetry Badge Number:	

Description of Work Duties (Describe in detail): Weapon parts were ground and polished. Brazing (out of beryllium)

Describe or list the work conditions/exposures you believe caused or contributed to the claimed work illness(es) at this facility

Indicate whether the employee participated in any employer health programs or unions at this facility (check all that apply)
[ ] Former Worker Program (FWP) [ ] Radiation Exposure Screening and Education Program (RESEP) [ ] Other Medical Study
[ ] Other Medical Surveillance Program [ ] Union Member [ ] Other (specify):

Declaration of the Person Completing this Form

Any person who knowingly makes any false statement, misrepresentation, concealment of fact of any other act of fraud to obtain compensation as provided under EEOICPA or who knowingly accepts compensation to which that person is not entitled is subject to civil or administrative remedies as well as felony criminal prosecution and may, under appropriate criminal provisions, be punished by a fine or imprisonment or both. I affirm that the information provided on this form is accurate and true. I also authorize the Department of Justice, Social Security Administration, any Former Worker Program, union, medical study or medical surveillance program (or any other person, institution, corporation, or government agency) identified on this form to furnish any desired information to the U.S. Department of Labor, Office of Workers' Compensation Programs.

(Signature) 08/23/2007 (Date)

Resource Center Date Stamp

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Form EE-3
April 2005

Report from National Jewish Page 1

NATIONAL JEWISH
Medical and Research Center

Global Leader in Lung Allergic and Immune Diseases

1234 Physician St.

Denver, CO 80206

111.222.3333
888.111.2222

#1 respiratory Hospitals in the U.S.
U.S. News and World Report

Fri Jul 27, 2007 9:45 AM

Name: John Claimant
MRUN 018-07-32 Acct # 123654
DOB 01-12-1946 Age 65
OCCUPATIONAL AND ENVIRONMENTAL MEDICINE FOLLOW UP SUMMARY REVISED FINAL

.....

DATE(S) OF SERVICE: July 11, 2007

ATTENDING PHYSICIAN: Lisa Physician, M.D.

CHIEF COMPLAINT:
Post bronchoscopy followup.

INTERIM HISTORY:
Mr. Claimant is 65-year-old gentleman, with beryllium sensitization here for follow up after his bronchoscopy, performed on 5/20/2007. Mr. Claimant reports that he has some wheezing after his bronchoscopy. He saw his primary care physician, and at the time of his visit he was not wheezing. He was not given any medication for treatment. Mr. Claimant's wife reports that he has had swelling in his feet. Of note, Mr. Claimant has a history of an abnormal bronchoalveolar lavage beryllium lymphocyte proliferation test in the past.

REVIEW OF SYSTEMS:
Constitutional: He denies fever or chill, no sweats.
Alergy/Immunology: Mr. Claimant reports no rhinitis or sore throat.
Ears/Nose/Mouth/Throat: He complains of some hoarseness, no postnasal drip. Respiratory: No significant change compared to his previous visit. Cardiovascular: Mr. Claimant reports worsened edema. Other: With regards to sleep, he has restless sleep. No snoring.

PAST MEDICAL HISTORY (UPDATE):
Mr. Claimant wife reports that he has an appointment with his cardiologist in 1 month.

Report from National Jewish Page 2

CURRENT MEDICATIONS:
Current medications were reviewed. No changes compared with the 05/30/2007 visit.

PHYSICAL EXAMINATION:
Vital signs: Reviewed. See chart. General appearance: A well-developed, well-nourished, well groomed gentleman in no acute distress. Neurological/Psychological: Mr. Claimant has a normal mood and affect.

NATIONAL JEWISH MEDICAL AND RESEARCH CENTER TEST DATA:
Spirometry: Mr. Claimant's spirometry is significant for restriction, with an FVC of 2.55 L or 66.2% of predicted, FEV1 is 2.2 L or 81.7% of predicted, and the FEV1/FVC ratio is 87%.

Bronchoscopy with transbronchial biopsies and bronchoaveolar lavage. The bronchoalveolar lavage revealed a good recovery of 65.8%, absolute white blood cells were high at 39.5 (normal equals 29.4 to 35.2), macrophages were 83% and lymphocytes were high at 16%. This indicates increased, compared with 02/2006, when Mr. Claimant's lymphocyte count was 3%. This likely indicates progression to chronic beryllium disease. Mr. Claimant's bronchoalveolar lavage beryllium lymphocyte proliferation test was not performed secondary to a laboratory error. However, it was abnormal in 02/2006. The abnormal bronchoalveolar lavage beryllium lymphocyte proliferation test, in combination with a lymphocytosis at this time, is consistent with chronic beryllium disease. Pathology report from transbronchial biopsies indicated patchy mild lymphoplasmacytic inflammation within the submucosa, and granulomas. The AFB gram stains were negative for mycobacteria and fungi.

IMPRESSION:

1. Mr. Claimant is an 83 year old gentleman, with beryllium sensitization, who at this time, has progressed to chronic beryllium disease, given his previously abnormal bronchoalveolar lavage beryllium lymphocyte proliferation test and his lymphocytosis seen on bronchoscopy at this time. This indicates a lymphocystic inflammation consistent with with chronic beryllium disease (CBD). Mr. Claimant also has abnormal pulmonary function testing , satisfying Department of Labor (DOL) Energy Employees Occupational Illness Compensation Program (EEOICP) criteria for CBD.
2. Possible aortic stenosis
3. Hoarseness, question aspiration versus postnasal drip.
4. Diabetes, for which Mr. Claimant should continue to follow up with his primary care physician.

Report from National Jewish Page 3

PLAN/TREATMENT

1. Counseled Mr. Claimant and his wife on his progression from beryllium sensitization to chronic beryllium disease. I advised Mr. Claimant to contact the Department of Labor claims examiner that he is assigned to, to notify them of the change. He will also forward them information regarding his bronchoscopy and this clinic visit, so that they can change his diagnosis in their system and compensate him accordingly.
2. Mr. Claimant should consider starting Flovent 110 mcg metered dose inhaler at two puffs twice daily, and albuterol 2 puffs as needed up to four times daily for his chronic beryllium disease. He should use the albuterol if he is experiencing any shortness of breath or cough.
3. Mr. Claimant should follow up with his cardiologist regarding possible aortic stenosis and any further treatment
4. Mr. Claimant should follow up with his primary care physician regarding his hoarseness. He should be evaluated, and his primary care physician may want to consider ordering a swallow study.
5. We will avoid steroid treatment for chronic beryllium disease, given his history of diabetes.
6. Mr. Claimant should follow up with us in 1 year. At that time, we will repeat pulmonary function testing, exercise tolerance testing, chest x-ray, and laboratories. He should follow up with us sooner if there is any significant change in his respiratory symptoms.

Kalie Physician, P.A.-C

Lisa Physician, M.D., M.S.P.H., F.C.C.P
Division of Environmental and Occupational Health Sciences, National Jewish Medical and Research Center
Associate Professor of Medicine
Department of Medicine and Department of Preventive Medicine and Biometrics
Division of Pulmonary Sciences and Critical Care Medicine, University of Colorado School of Medicine

Enclosures: The bronchoscopy results, including pathology report, BAL cell count and differential, and BAL LPT.

Pulmonary Function Test

Performed Date/Time : 05/29/2007 3:15 PM Ordered By: BODY PLETHYSMOGRAPHY
BODY PLETHYSMOGRAPHY:
Pulmonary Physiology Unit — Body Plethysmography Report
Race: Other — Height: 177 cm — Weight: 100 kg
Location: OCC MED Patient — Date: 05/29/2007 — Time: 04:45:11PM

Lung Volumes		Pred	Pre	%Pred	Post	%Pred	%Change
TLC	[1]	6.23	8.52	93	5.73	92	-2
IC	[1]	2.23	3.04	126	314	132	3
PRC-pleth	[1]	3.85	2.78	72	2.6	67	-7
ERV	[1]	1.7	0.31	18	0.21	12	-33
RV	[1]	2.15	2.47	115	2.39	111	-3
VCmax	[1]	3.65	3.35	87	3.34	87	0
RV / TLC	[%]	34.5	42.5	123	41.7	121	-2
FRC-plath / TLC	[%]	61.8	47.77	77	45.29	73	-5

Forced Expiration		Pred	Pre	% Pred	Post	%Pred	%Change
FVC	[1]	3.85	3.08	80	2.39	62	-23
FEV 1	[1]	2.7	2.48	92	2.36	87	-5
FEV1 / FVC	[%]	70	80	114	99	141	23
FEF 29 – 75	[1/s]	1.8	275	153	5.77	321	110
PEF	[1/s]	6.78	6.31	93	7.64	113	21
FEF 25	[1/s]	7.05	6.31	89	7.64	108	21
FEF 50	[1/s]	5.57	4.92	8	6.75	121	37
FEF 75	[1/s]	2.65	0.76	29	314	118	13
PIF	[1/s]	4.12	4.56	111	6.09	148	34
FEF50 / FIFGO	[%]	153	115	75	112	74	-2

Additional Studies		Pred	Pre	%Pred	Post	%Pred	%Change
Raw	[cmH20*s/1]	1.69	1.94	115	1.74	103	-10
sGaw	[1/(cmH20*%)]	0.154	0.186	121	0.221	144	19
DSCO SB	[ml/min/mmHg]	29.12			19.25	66	
DLCOc SB	[ml/min/mmHg]				19.2		
VA	[1]	6.84			4.98	73	
DLCO/VA	[ml/min/mmHg/1]	4.26			3.86	91	
DLCOc/VA					3.86		
PI max Average		71					
PE max Average		111					

		Pred	Pre	%Pred	Post	%Pred	%Change
Weight (kg)							
TLC *	[1]	6.23					
FRC-Pleth	[1]	3.85					
A	[1]	6.23					
A - B	[1]						
K	[1/cmH20]	0.162					
Pel 100% TLC	[cmH20]	31.7					
Ooof. Retraction	[cmH20/1]	5.09					
Compliance at	[1/cmH20]						
R upstream	[cmH20/1/s)]						

BroncheoAlveolar Lavage (BAL) Page 1

Performed Date Time: 05/30/2007 1:45 PM Ordered By: BAL CELL COUNT
BAL CELL COUNT: RESULTED
Resulted Components:

%RECOVERY	(61.1 – 62.9)%	'65.8H
RECOVERY ML	MLS	158
ABS.RBC	x10E6	45.0
ABS.WBC	(29.4 – 35.2)x10B6	39.5H
ABS.EPI CELLS	x10E6	0.0
%MACROPH		83L
	(87 – 89)	Comment: CORRECTED ON 05/30/ AT 1633: PREVIOUSLY REPORTED AS 84
ABS NO. MACROPH		32.8
	x10E6	Comment: CORRECTED ON 05/31 AT 0937: PREVIOULY REPORTED AS 33.2
%NEUT	(1.5 – 2.1)	OL
ABS NO.NEUT	x10E6	0.0
%LYMPHS	(8.9 – 10.1)	16H
ABS NO. LYMPHS	x10E6	6.3
%EOS		[1]
	(0.3 – 0.5) x10E6	Comment: CORRECTED ON 05/30 AT 1633: PREVIOUSLY REPORTED AS 0
ABS NO. EOS		0.4
	x10E6	Comment: CORRECTED ON 05/31 AT 0937: PREVIOUSLY REPORTED AS 0.0
COMMENT:		[MEAN -/- S.E.M.] DAT BASED ON [9] NORMAL SUBJECTS : INCLUDES [EX SMOKERS AND NEVER SMOKERS] [AM. REV. RESFIR. DIS (MAY) 1990; NOTE: DEMOGRAPHIC FACTORS AND SMOKING HISTORY MUST BE TAKEN INTO ACCOUNT WHEN COMPARING SUBJECTS. IN SMOKERS:TOTAL WBC – 59.9 -/- 0.9 NEUT. 1.6 -/- 0.2; EOS. 0.56 -/- 0.13.

BroncheoAlveolar Lavage (BAL) Page 2

Performed Data Time: 02/07/2006 9:30 AM Ordered By: BAL CELL COUNT
BAL CELL COUNT: RESULTED
Resulted Components:

% RECOVERY	(61.1 – 62.9)%	71H
RECOVERY ML	MLS	170
ABS.RBC	x10B6	134.3
ABS. WBC	(29.4–35.2)x10E6	68.9H
ABS. EPI CELLS	x10E6	0.0
%MACROPH	(87 – 89)	96H
ABS NO. MACROPH	x10E6	66.1
%NEUT	(1.5 – 2.1)	1L
ABS NO.NEUT.	x10E6	0.7
%LYMPHS	(8.9 – 10.1)	3L
ABS NO. LYMPHS	x10E6	2.1
%EOS	(0.3 – 0.5)x10E6	0L
ABSNO. EOS	x10E6	0.0

COMMENT:

[MEAN -/- S.E.M.] DAT BASED ON
[9] NORMAL SUBJECTS: [INCLUDES
EX SMOKERS AND NEVER SMOKERS]
AM. REV. RESFIR. DIS (MAY) 1990;
NOTE: DEMOGRAPHIC FACTORS AND
SMOKING HISTORY MUST BE TAKEN INTO
ACCOUNT WHEN COMPARING SUBJECTS.
IN SMOKERS:TOTAL WBC – 59.9 +/- 0.9
EOS. 0.56 -/- 0.13.

Lymphocyte Transformation Test – BroncheoAlveolar Lavage from Jewish Hospital

NATIONAL JEWISH
Medical and Research Center

Global Leader in Lung Allergic and Immune Diseases

1234 Physician St.

Denver, CO 80206
111.222.3333
888.111.2222

#1 respiratory Hospitals in the U.S.
U.S. News and World Report

Lymphocyte transformation test: Bronchoalveolar Lavage

PATIENT NAME: John Claimant
NJC # OR ID: T345679
DATE OF TEST: 03/07/06
REFERRING PHYSICIAN: Lisa Physician, MD
TECH: RCT

RESULTS	MEAN STIMULATION INDEX		
	DAY3	DAY4	DAY6
MITOGENS	24.6		
Phytonhemagglufinin			
Concernavalin A		3.9	
BERYLLIUM SULFATE			
1X 10^4M	2.7	1.0	0.6
1x10^5M	3.9	2.0	1.5
1X10^6M	1.9	1.3	1.7

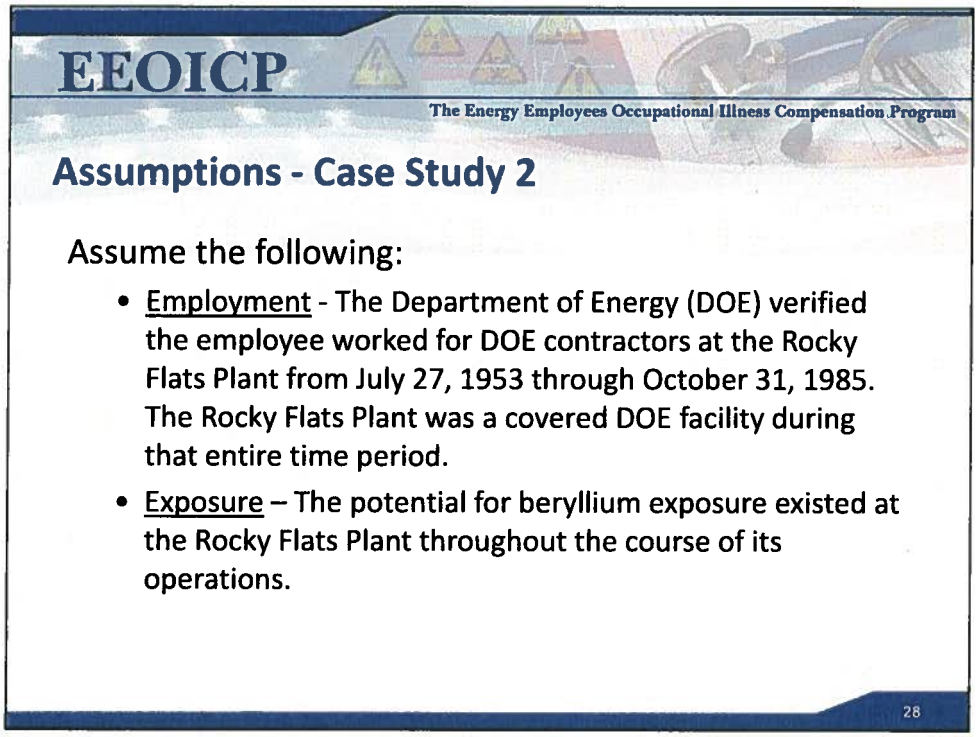
INTERPRETATION
Normal response to mitogen (Mitogen normal:>3.0)
Abnormal lymphocyte proliferation to beryllium sulfate.

Note: An abnormal result is 2 or more beryllium sulfate values above the cut-off value of 2.5
The assay is used for clinical purposes and was developed and its performance characteristics determined by the National Jewish Clinical Reference Laboratories. It has not been cleared or approved by the US Food and Drug Administration. The FDA has determined that such clearance or approval is not necessary. This laboratory is certified under the Clinical Laboratory Improvement Amendment of 1988 (CLIA) as qualified to perform complexity clinical laboratory testing.

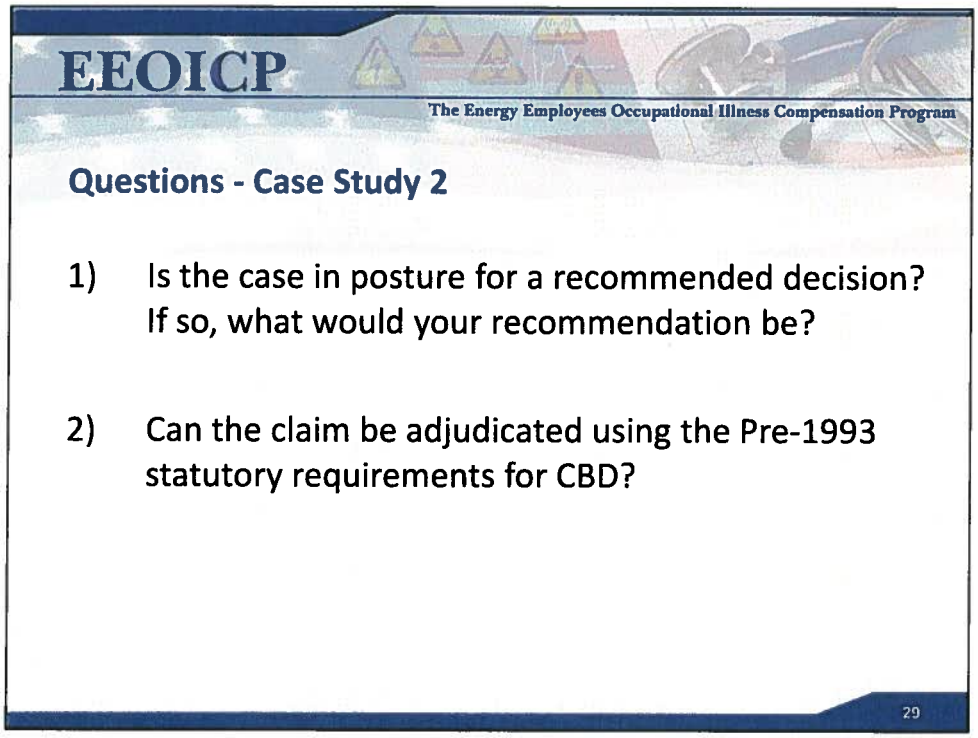
Lisa Physician, MD

Founded 1988* None Profit*None -Sectarian*Independent

Case Study 2 Assumptions



Case Study 2 Questions



Answers

Your Answers

Your Answers

EEOICP

The Energy Employees Occupational Illness Compensation Program

Answers - Case Study 2

1) Is the case in posture for a recommended decision? If so, what would your recommendation be?

   Yes, the CBD claim should be accepted under Part B and Part E because the employee was exposed to beryllium during covered employment and there is sufficient medical evidence to meet the Post-1993 statutory requirements.

2) Can the claim be adjudicated using the Pre-1993 statutory requirements for CBD?

   Yes, if the medical evidence meets at least three of the five of the statutory requirements for Pre-1993 CBD then the Claims Examiner can approve the claim based upon the Pre-1993 CBD criteria, whether the employee is living or deceased.

30

Your Notes

Your Notes

Acronym List

Acronym	Meaning
AADEP	American Academy of Disability Evaluating Physicians
AAW	Average Annual Wage
ABIME	American Board of Independent Medical Examiners
ACS	Affiliated Computer Services (current medical bill pay contractor)
ADL	Activities of Daily Living
ADP	Automated Data Processing
AEC	Atomic Energy Commission
AMA's Guides	American Medical Association's Guides to the Evaluation of Permanent Impairment
ANRSD	Amended NIOSH Referral Summary Document
ARLD	Asbestos Related Lung Disease
AWE	Atomic Weapons Employer
BAL	Bronchoalveolar Lavage
Be	Beryllium
BeS	Beryllium Sensitivity
BOTA	Branch of Outreach and Technical Assistance
BPA	Bill Pay Agent
CAT	Computerized Axial Tomography
CATI	Computer Assisted Telephone Interview - held by NIOSH for DRs
CBD	Chronic Beryllium Disease
CE	Claims Examiner
CE2	Claims Examiner who can work on cases assigned to the Final Adjudication Branch
CFR	Code of Federal Regulations
CLL	Chronic Lymphocytic Leukemia
CMC	Contract Medical Consultant
CPI	Consumer Price Index
CPT	Current Procedure Terminology
CPWR	Center to Protect Workers Rights
CT	Computed Tomography
DAR	Document Acquisition Request

Acronym	Meaning
DD	District Director
DEEOIC	Division of Energy Employees Occupational Illness Compensation
DME	Durable Medical Equipment
DMS	District Medical Scheduler
DO	District Office
DoD	Department of Defense
DOE	Department of Energy
DOJ	Department of Justice
DOL	Department of Labor
DR	Dose Reconstruction
DRG	Diagnosis Related Group
ECS	Energy Compensation System
EE-1	Employee Claim for Benefits form
EE-2	Survivor Claim for Benefits form
EE-3	Employment History
EE-4	Employment History Affidavit
EEOICPA	Energy Employees Occupational Illness Compensation Program Act (the Act)
EFT	Electronic Funds Transfer
ERDA	Energy Research and Development Administration (pre DOE)
FAB	Final Adjudication Branch
FAB DO	Final Adjudication Branch District Office
FO	Fiscal Officer
FOIA	Freedom of Information Act
FTE	Full Time Equivalent
FTR	Federal Travel Regulations
FWP	Former Worker Program
GTR	Government Travel Regulations
HHA	Home Health Aide
HHS	Health and Human Services
HP	Health Physicist
HR	FAB Hearing Representative
ICD-9	International Coding of Diseases

Acronym	Meaning
IH	Industrial Hygienist
IM	Intramuscular
IREP	Interactive RadioEpidemiological Program
IREP-EE	IREP-EE- Enterprise Edition used for POCs between 45 and 50%
IV	Intravenous
LPN	Licensed Practical Nurse
LPT	Lymphocyte Proliferation Test (Same as BeLPT)
LTT	Lymphocyte Transformation Test (Same as BeLTT)
MMI	Maximum medical improvement
NDC	National Drug Code
NIOSH	National Institute for Occupational Safety and Health
NO	National Office
NRSD	NIOSH Referral Summary Document
OCAS	NIOSH's Office of Compensation Analysis and Support
OCAS-1	NIOSH form to be signed by claimant after DR
OHQ	Occupational History Questionnaire
ORISE	Oak Ridge Institute for Science and Education
OWCP	Office of Workers' Compensation Programs
PA	Privacy Act
PCA	Payee Change Assistant
PEP	Program Evaluation Plan
PER	Program Evaluation Report
PII	Personally Identifiable Information
PM	Procedure Manual
PoC	Probability of Causation
POC	Point of Contact
POV	Privately Owned Vehicle
RC	Resource Center
RD	Recommended Decision
RECA	Radiation Exposure Compensation Act
SEC	Special Exposure Cohort
SEM	Site Exposure Matrices
SIR	ACS's "Stored Information Retrieval" system where bills are stored.

Acronym	Meaning
SOAF	Statement of Accepted Facts
SOL	Solicitor of Labor
SSA	Social Security Administration
SWC	State Workers' Compensation
TAs	Technical Assistants
WCA	Workers Compensation Assistants

Evaluation Form

We value your opinion. Please rate the following:

	Poor	Fair	Good	Excellent
Organization of subject matter				
Explanation of key concepts				
Presenter's knowledge of subject				
Presentation was clear and understandable				
Appropriate pace for training				
Relevance of training material				
Correct level of detail				
Exercise content was appropriate				
Examples were clear and helpful				

Which topics were most beneficial to you?

Which topics were least beneficial to you?

Other comments or suggestions for improvement:

Name (optional): _____Date: _____