Energy Employees Occupational Illness Compensation Program



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 Since the mid-1940s, it has been estimated that 650,000 workers have been engaged in nuclear weapons-related activities for the U.S. Department of Energy (DOE) or its predecessor agencies.

- Congress promulgated the EEOICPA of 2000
- Enacted after epidemiologic research indicated associations between workrelated exposures to potential hazards at DOE facilities and elevated rates of cancers and other illnesses incurred by this workforce.

The sense of Congress was that since World War II, many men and women have served in building the Nation's nuclear defense and, in the course of this work, have been exposed to beryllium, ionizing radiation, and other hazards unique to nuclear weapons production and testing.

It further states that "a large number of nuclear weapons workers at sites of the DOE and at sites of vendors who supplied the Cold War effort were put at risk without their knowledge and consent for reasons that...were driven by fears of adverse publicity, liability, and employee demands for hazardous duty pay."

Part B of the Act, supplemented by a Presidential Executive Order (2000), established a program for providing a lump-sum payment of \$150,000 and medical benefits as compensation to people who have suffered or are suffering from designated illnesses (i.e., cancer, chronic beryllium disease, or silicosis)

 (cont.) shown to have developed from exposures incurred during employment involving nuclear weapons-related activities at one or more facilities or sites operated by DOE or its predecessor agencies.

 Also included coverage for >100,000 employees of commercial facilities that were contracted by AEC/DOE to perform work related to the nuclear weapons programs.

 Under the Act, these facilities have been designated as Atomic Weapons Employers (AWEs).

- Part B, which became effective 31 July 2001, covers current and former employees of:
- (1) the DOE (or its predecessor agencies),
- (2) DOE contractors and subcontractors of AWE,
- (3) beryllium vendors, and
- (4) uranium miners, millers, and ore transporters who worked at facilities that were covered under the RECA legislation.

- Also, certain survivors of deceased workers are eligible for compensation.
 Diseases included under Part B are:
 cancer,
 - chronic beryllium disease,
 - beryllium sensitivity,
 - chronic silicosis and
 - RECA miners, millers, and ore transporters.

- Administered by the Labor Department's Division of Energy Employees Occupational Illness Compensation (DEEOIC)
- Provides lump-sum compensation and medical benefits to current and former nuclear weapons workers
- Survivors of qualified workers may also be entitled to benefits

Agencies Involved: Department of Labor (DOL) Department of Energy (DOE) Department of Health and Human Services National Institute for Occupational Safety and Health (NIOSH) Department of Justice (DOJ)

- There are several Federal entities that support implementation of EEOICPA.
- Department of Labor's (DOL) Office of Workers' Compensation Programs (OWCP) is responsible for adjudicating and administering claims filed by current employees, former employees, or certain qualified survivors.

- The National Institute for Occupational Safety and Health (NIOSH) and the Advisory Board on Radiation and Worker Health (Advisory Board) are responsible for conducting occupational radiation dose reconstructions for certain claims filed under EEOICPA.
- NIOSH and the Advisory Board are also responsible for conducting research and evaluating Special Exposure Cohort (SEC) petitions.

- The Department of Energy (DOE) provides all available worker and facility records and data are provided to DOL, NIOSH, and/or the Department of Justice (DOJ) upon request. DOE's support of EEOICPA is overseen by the Office of Environment, Health, Safety and Security (EHSS).
 - Former Worker Medical Screening Program

<u>DOJ -RECA</u>

- Political pressure by nuclear test site worker advocates and civilians who lived downwind from atmospheric test locations.
- The Radiation Exposure Compensation Act (RECA), passed on October 5, 1990 (scope of coverage was broadened in 2000), established an administrative program for claims relating to atmospheric nuclear testing and claims relating to uranium industry employment.

<u>DOJ -RECA</u>

- Administered by the Department of Justice (DOJ).
- Compensation for >50,000 potential claimants.
- In July 2000, Congress passed the RECA Amendments of 2000, which added uranium millers and ore transporters to the list of eligible claimants.



- RECA establishes lump sum compensation awards for individuals who contracted specified diseases in three defined populations:
 - Uranium miners, millers, and ore transporters \$100,000;
 - "Onsite participants" at atmospheric nuclear weapons tests – \$75,000; and
 - Individuals who lived downwind of the Nevada Test Site ("downwinders") – \$50,000.

<u>DOJ -RECA</u>

More recently (under the EEOICPA), there is a provision for "bumping up" the payout for uranium workers (or their survivors) in the amount of \$50,000 to provide parity between the two programs.

DOL - RCs

- DOL established 11 Resource Centers nationwide to assist workers and their families apply for benefits under EEOICPA.
 - Provide valuable information about the claims process to claimants, assist claimants in completing the necessary forms, and transmit documents to the DEEOIC District Offices.
 - Conduct outreach activities to inform the public of benefits and requirements of the EEOICPA.



DOL - DOs

- The DEEOIC maintains four district offices that process claims under the EEOICPA:
 - Cleveland, Ohio
 - Denver, Colorado;
 - Jacksonville, Florida
 - Seattle, Washington
 - Jurisdiction based on the location of the employee's last employment.

DOL - DOs

- Once the district office receives a claim, the claims examiner (CE) reviews the evidence submitted. Once appropriate development of a case file has been completed, a recommended decision is issued.
- The recommended decision is a preliminary finding of the district office, and includes a statement of the case, findings of fact, conclusions of law, and claimant rights of action.

<u>DOL - DOs</u>

Each claimant is given the opportunity to object to the findings contained in the recommended decision within 60 days of issuance.

District Office Jurisdictional Map



<u>DOL - FAB</u>

- The Final Adjudication Branch (FAB) maintains a National Office in Washington D.C. and four district FAB offices geographically located with the district offices.
- The FAB independently reviews each recommended decision to ensure adherence to the EEOICPA and established program policies and procedures.

<u>DOL - FAB</u>

- Claimant objections are considered by way of review of the written record or oral hearings.
- After due consideration of any argument or evidence presented by the claimant, the FAB issues a final decision.

The final decision is a written document that discusses the finding of FAB and addresses any specific objection brought forth by a claimant.

<u>DOL - FAB</u>

- Subsequent to the issuance of a final decision, the claimant may request a reconsideration of the final decision or a request for reopening.
- Claimants are not required to request any of these types of administrative review before petitioning a U.S. District Court for review of an adverse final decision on their claims

Eligibility – Medical

<u>Part B</u>

Cancer
Chronic Beryllium Disease
Chronic Silicosis
RECA Section 5

awardees

 Any condition related to toxic substances

<u>Part E</u>



Part B	Part E
\$150,000 Employee + Survivor	Impairment \$2,500 per % (Employee)
\$50,000 RECA Employee + Survivor	Wage Loss \$10,000 - \$15,000 per year (Employee)
	\$125,000 Survivor (+ lump-sum Wage Loss if eligible)

\$400,000 CAP for B+E combined

Dose Reconstruction

 The Presidential Executive Order assigned the U.S. Department of Health and Human Services (DHHS) the task of fulfilling several important supporting technical and policymaking roles.

Dose Reconstruction

- The National Institute for Occupational Safety and Health (NIOSH), Division of Compensation Analysis and Support (DCAS)
- Reconstruct radiation doses for those workers who have filed a claim, or their survivors who have filed a claim.

Dose Reconstruction

 To date, over 44,000 dose reconstructions (DRs) have been completed for workers from over 200 covered facilities.

These reconstructions include assessment of both internal and external exposure at all major DOE facilities, as well as at a large number of AWE facilities.

Demographics

Most workers are men (87%).

A significant portion of the claims (28%) have been filed by survivors (i.e., spouses or children) of former workers. Given the size of the DOE complex, the majority of the cases (84%) are from workers or former workers at DOE (or its predecessor agencies) facilities.

Demographics

Major employment sites (% claims): • Oak Ridge (3 sites) -27%■ National Laboratories – 16% ■ Savannah River Site – 13% • Hanford Site – 10%Portsmouth and Paducah GDPs – 10% Other sites - 24%

Once the dose is reconstructed, a probability of causation (PoC) distribution is determined. This task requires the input of additional sources of information, the primary ones being one or more of the dose-response relationships that provide a quantitative expression of the risk of cancer per unit dose, and the uncertainty associated with the accompanying estimates.

- PoC in general is an estimate of the percentage of cases caused by the radiation among the group of persons exposed to the radiation.
- For compensation programs, PoC is an estimate of the likelihood that the health effect of the individual was caused by exposure to the hazard (in this case, the radiation).

 Using a Monte-Carlo sampling technique, the IREP program combines the uncertainty in the risk models with the uncertainty in the dose estimates to produce a distribution of PoC estimates. The decision whether compensation is warranted is based on this PoC calculation.

The NIOSH guidelines, as required by the EEOICPA, use the upper 99% credibility limit to determine whether the cancer of an employee is as likely as not caused by the radiation exposure.

This approach is intended to minimize the possibility of denying compensation to claimants with cancer that may have been caused by ionizing radiation.

 In 1985, the National Institutes of Health (NIH) developed a set of radioepidemiological tables for estimating PoC for individuals with cancer who were exposed to ionizing radiation.

- The tables were used by the Department of Veterans Affairs to make compensation decisions for veterans in the Radiation-Exposed Veterans Compensation Act of 1988.
- The primary data source for the tables is cancer deaths among the Japanese A-bomb survivors.
- In the early 2000s the tables were updated and incorporated into an interactive computer program called IREP (Interactive RadioEpidemiological Program).

Under Part B, compensation decisions for a covered cancer are made by DOL based on a PoC calculation. Using IREP, a cancer must have been "at least as likely as not" (i.e., a probability of causation of $\geq 50\%$) due to the worker's radiation exposure at a covered facility.

The overall compensation rate for claims with DRs and a single primary cancer is 26.2%.
For cases with multiple cancers, the compensation rate increases to 35.2%.
For all cases combined, the overall compensation rate is 28.8%.

Based on February 2014 data (>34,000 claims)

- Of the >22,000 cases with a single primary cancer, lung, prostate, and skin cancer make up >50% of the cases.
- Lung cancer has the highest compensation rate (65%), producing a PoC >50%.
- This is largely a result of the missed internal dose assigned by NIOSH for cases that had the potential for inhalation exposure to the plutonium or uranium.

Three forms of leukemia have three of the top six cancer compensation rates, which are primarily related to the elevated excess relative risk per Sievert associated with leukemia as compared to other solid tumors.

- Cancers of organs with low uptakes of actinides (e.g., brain and digestive tract) have relatively low, but not zero, compensation rates.
- For these cancers to be compensated, it usually requires a fairly high cumulative external exposure to penetrating gamma radiation.
- These types of conditions were more predominant in the early AWE periods during the processing of uranium ores.

Presumption of causation - cancer

Employment

Covered in class defined by NIOSH

■ Work day requirement – 250 work days

"Specified" ("presumptive") Cancer

■ 22 cancers <u>named in law</u>

No need for dose reconstruction

"Specified Cancers"

Cancer Site	RECA (1990)	RECA (2000)	EEOICPA
Bile duct	+	+	+
Bone			+
Brain		+	+
Breast (female and male)	+	+	+
Colon		+	+
Esophagus	+	+	+
Gall bladder	+	+	+
Kidney			+
Leukemia	+	+	+
Liver	+	+	+
Lung		+	+

"Specified Cancers" (cont.)

Cancer Site	RECA (1990)	RECA (2000)	EEOICPA
Lymphoma (NHL)	+	+	+
Multiple myeloma	+	+	+
Ovary		+	+
Pancreas	+	+	+
Pharynx	+	+	+
Salivary gland		+	+
Small intestine	+	+	+
Stomach	+	+	+
Thyroid	+	+	+
Urinary bladder		+	+

- Initially under EEOICPA the SEC included workers at the Paducah, Portsmouth, and Oak Ridge gaseous diffusion plants and the Amchitka Island Nuclear Explosion Site.
- The legislation provides for additional classes of individuals to be added to the SEC if certain conditions are met.

The responsibility for developing a process for adding classes of employees to the SEC was assigned to the Secretary of HHS.
Under the guidelines developed by NIOSH/DCAS the Agency is responsible for

collecting and evaluating petitions for consideration by the Secretary of HHS when determining whether or not to add groups of employees (classes) to the SEC.

- Basically there are two requirements that must be met to add a class to the SEC. The Secretary of HHS must find that:
 - It is not feasible to estimate the radiation doses of a class of employees with sufficient accuracy; and
 - 2. There is a reasonable likelihood that such radiation doses may have endangered the health of members of the class.

- Procedurally, the process for adding a class to the SEC is as follows.
- The process begins with a petition from an individual or group of individuals who essentially assert that they meet the requirements for being designated as a class of the SEC.
- If the petition qualifies for evaluation, NIOSH prepares an Evaluation Report (ER) on the petition whereby they recommend to the Secretary approval or denial of the petition.

The petition and the ER are then reviewed by the Advisory Board, which, by vote, makes a recommendation to the Secretary on approving or denying the petition.

 With input from NIOSH and the Advisory Board, the Secretary makes a recommendation to Congress on adding a class to the SEC.

- In addition to the 4 classes of the SEC identified in the original legislation, an additional 119 classes have been added through the SEC petition process.
 - 71 (60%) have resulted from petitions initiated by petitioners at various sites
 - 48 (40%) have resulted from NIOSH determining that it was unable to reconstruct dose for an individual or group of individuals.



187,607 cases filed with DOL

46,205 Cases referred to NIOSH for DR

44,187 Cases Returned to DOL from NIOSH

Data as of July 10, 2016



Accepted DR Cases – 9,850 \$1.5 Billion in Compensation

Accepted SEC Cases – 23,968
 \$3.6 Billion in Compensation

Data as of July 10, 2016

EEOICPA Compensation Nationwide



\$6 Billion Part B

\$3.8 Billion Part E

\$2.9 Billion Medical

