

NIOSH® Radiation Dose Reconstruction Program

EEOICPA at a Glance

Since World War II, many workers took part in nuclear weapons-related activities for the Department of Energy (DOE), its contractors and subcontractors, and Atomic Weapons Employers. Many jobs at these sites involved work with radiation and radioactive materials. The Energy Employees Occupational Illness Compensation Program Act of 2000 (EEOICPA), which is administered by the U.S. Department of Labor (DOL), enables current and former workers in the Nation's nuclear weapons program, or their survivors, to file claims for compensation if they believe they have an illness due to workplace exposures to hazardous substances or radiation.

The National Institute for Occupational Safety and Health (NIOSH) provides scientific support for claims involving workers with cancer due to radiation exposure. NIOSH is part of the Centers for Disease Control and Prevention in the U.S. Department of Health and Human Services (HHS).

The Way We Work

Probability of Causation — NIOSH developed guidelines to determine the probability that a worker's cancer was the result of occupational radiation exposure. This probability is determined by combining risk analysis and the worker's reconstructed radiation dose. When the probability is 50% or greater that the cancer was caused by radiation, DOL awards compensation.

Radiation Dose Reconstruction — NIOSH established radiation dose-estimation methods using available sampling data, radiation sources used, and facility production records from the sites to determine radiation doses of individual claimants.

Special Exposure Cohort (SEC) Petitions — The SEC is a designation created by the Act. Members of the SEC are presumed to have radiation exposure that caused their cancer.

NIOSH makes recommendations to add classes of workers to the SEC when it is not possible to reliably estimate the workers' radiation exposure. Additions to the SEC usually involve workers at a specific site who worked during a defined period of time. SEC members are awarded compensation without requiring a dose reconstruction for certain cancers.

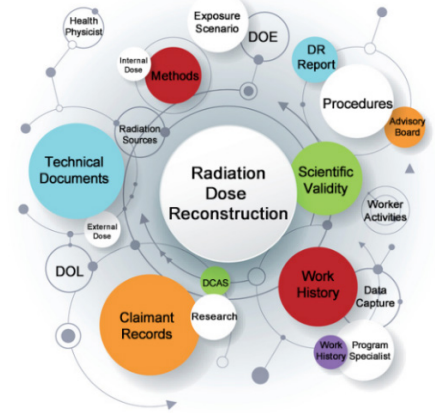
NIOSH developed guidelines for adding classes to the SEC and evaluates petitions for adding classes.

Collaborations and Support

Interagency Collaboration — NIOSH works collaboratively with the U.S. Department of Energy (DOE), which provides records of employment and occupational radiation exposure. DOE assists NIOSH in its research into potential radiation exposures and monitoring practices at EEOICPA-covered facilities. That research is necessary in order to develop radiation dose-estimation methods and to evaluate SEC petitions. NIOSH also works with DOL, which has overall responsibility for administering EEOICPA.

The Advisory Board on Radiation and Worker Health (the Board) — The Board was created by the Act to advise the Secretary of HHS on implementation of EEOICPA. Consisting of Presidential appointees, the Board assists the Secretary by reviewing NIOSH dose reconstructions, procedures, and SEC petitions. NIOSH assists the Board by providing background reports, proposed findings, and responding to the Board's recommendations.

- **Procedures:** The Advisory Board's Subcommittee on Procedures Reviews has reviewed 170 technical documents used in NIOSH's dose reconstructions to date to ensure high-quality science. NIOSH is currently addressing 138 active findings from these reviews.
- **Dose Reconstructions:** The Advisory Board's Subcommittee on Dose Reconstruction Reviews has a goal to review a 1% sample of all completed dose reconstructions for quality assurance. It has completed reviews of 560 dose reconstructions to date. NIOSH responds to all findings and observations resulting from these case reviews. Currently, 30 dose reconstructions are under review by the Subcommittee.
- **SEC Petitions:** The Advisory Board submits its recommendations concerning SEC classes to the Secretary of HHS. The Advisory Board is currently reviewing SEC petitions involving 10 sites.



By the Numbers

NIOSH started reconstructing doses in **2002**.

More than **53,000** cases for dose reconstruction received from DOL.

NIOSH receives approximately **125** claims per month for dose reconstruction.

Goal is to complete reconstructions within **5** months of receiving all information from DOE.

128 SEC classes added by the Secretary of HHS to date.

NIOSH receives approximately **4** petitions per year to add new classes to the SEC.

Data current as of April 2021