

U.S. Department of Health and Human Services Designation  
of Additional Members of the Special Exposure Cohort  
under the  
Energy Employees Occupational Illness Compensation Program Act of 2000

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Designating a Class of Employees

Idaho National Laboratory

Scoville, Idaho



## I. Designation

I, Eric D. Hargan, Acting Secretary of the U.S. Department of Health and Human Services (HHS), designate the class of employees defined in Section II of this report for addition to the Special Exposure Cohort (SEC), as authorized under the Energy Employees Occupational Illness Compensation Program Act of 2000 (EEOICPA), 42 U.S.C. § 7384q.

November 22, 2017  
Date

[Signature on File]  
Eric D. Hargan, Acting Secretary

## II. Employee Class Definition

All employees of the Department of Energy, its predecessor agencies, and their contractors and subcontractors who worked at the Idaho National Laboratory (INL) in Scoville, Idaho, and who were monitored for external radiation at the Idaho Chemical Processing Plant (CPP) (e.g., at least one film badge or TLD dosimeter from CPP) between January 1, 1975, and December 31, 1980, for a number of work days aggregating at least 250 work days, occurring solely under this employment, or in combination with work days within the parameters established for one or more other classes of employees in the Special Exposure Cohort.

## III. Designation Criteria and Recommendations

Pursuant to 42 U.S.C. § 7384q, for the class defined in Section II of this report, the Secretary has determined, and the Advisory Board on Radiation and Worker Health (Board) has recommended, that

- (1) it is not feasible to estimate with sufficient accuracy the radiation dose that the class received; and
- (2) there is a reasonable likelihood that such radiation dose may have endangered the health of members of the class.

The SEC final rule states in 42 C.F.R. § 83.13(c)(1) that it is feasible in two situations to estimate the radiation dose that the class received with sufficient accuracy. First, the rule states that radiation doses may be estimated with sufficient accuracy if NIOSH has established that it has access to sufficient information to estimate the maximum radiation dose, for every type of cancer for which radiation doses are reconstructed, that could have been incurred under plausible circumstances by any member of the class. Alternatively, radiation doses may be estimated with sufficient accuracy if NIOSH has established that it has access to sufficient information to estimate the radiation doses of members of the class more precisely than a maximum dose estimate.

NIOSH determined that there is insufficient information to estimate the radiation dose of individual members of the class with sufficient accuracy under the two above-mentioned situations. The Board, pursuant to 42 U.S.C. § 7384q, advised the Secretary to designate the class as an addition to the SEC in a letter received by the Secretary on October 30, 2017.

#### IV. Designation Findings

##### Infeasibility of Estimating Radiation Doses with Sufficient Accuracy

The Secretary designates the class of employees covered by this report based upon the findings summarized below.

- NIOSH has identified the principal source of internal radiation dose for members of the proposed class at the CPP for the period between January 1, 1975, and December 31, 1980, was from mixed fission products, uranium, and transuranic radionuclides from processing spent fuel elements that contained enriched uranium.
- NIOSH has concluded, based on its assessment of the available employee monitoring data, that there are insufficient internal dosimetry data or air monitoring data available to bound intakes of transuranic radionuclides for the time period between January 1, 1975, and December 31, 1980. Therefore, NIOSH lacks sufficient information to allow it to estimate with sufficient accuracy the potential internal exposures to transuranic radionuclides to which the proposed class of workers may have been subjected.
- NIOSH also found that internal doses, with the exception of transuranic radionuclides can be adequately reconstructed using information and dose reconstruction methods stated in *Idaho National Laboratory and Argonne National Laboratory-West—Occupational Internal Dose, Rev. 03, Oak Ridge Associated Universities Team, Technical Basis Document (ORAUT-TKBS)-0007-5*.
- NIOSH has identified the principal sources of external radiation dose for members of the proposed class included exposures to beta, gamma, and neutron radiation.
- NIOSH determined that the beta-gamma external dose potential at CPP between January 1, 1975, and December 31, 1980, was associated with the handling and storage of spent fuel, fuel reprocessing, laboratory analyses of product streams, and disposal of process wastes. The neutron external dose potential at CPP during this period was primarily associated with the handling enriched uranium, transuranic radionuclides, and spontaneous fission of radionuclides. Monitoring data are available for CPP in the form of individual dosimetry records and area exposure reports.

- NIOSH determined that external radiation doses can be reconstructed for this class of CPP employees using *Idaho National Laboratory and Argonne National Laboratory-West—Occupational External Dose, Rev. 03, ORAUT-TKBS-0007-6*.
- NIOSH also determined that occupational medical doses and environmental doses can be reconstructed using *Idaho National Laboratory and Argonne National Laboratory – West – Occupational Medical Dose, Rev. 02, ORAUT-TKBS-0007-3* and *Idaho National Laboratory and Argonne National Laboratory-West—Occupational Environmental Dose, Rev. 02, ORAUT-TKBS-0007-4*, respectively.
- In summary, NIOSH has determined that it lacks sufficient information, which includes employee monitoring data and air monitoring data, to allow it to estimate with sufficient accuracy the potential internal exposures to transuranic radionuclides to which the proposed class may have been subjected. NIOSH finds that it has sufficient information to reconstruct other potential internal exposures, external exposures, and occupational medical dose for INL-CPP employees with sufficient accuracy.
- Therefore, pursuant to 42 C.F.R. § 83.13(c)(1), NIOSH has determined that there is insufficient information to either: (1) estimate the maximum radiation dose, for every type of cancer for which radiation doses are reconstructed, that could have been incurred under plausible circumstances by any member of the class; or (2) estimate the radiation doses more precisely than a maximum dose estimate for the any member of the class at INL-CPP for the time period between January 1, 1975, and December 31, 1980.
- Although NIOSH found that it is not possible to completely reconstruct radiation doses for the proposed class, NIOSH intends to use any internal and external monitoring data that may become available for an individual claim (and that can be interpreted using existing NIOSH dose reconstruction processes or procedures). Therefore, dose reconstructions for individuals employed at INL-CPP for the time period between January 1, 1975, through December 31, 1980, but who do not qualify for inclusion in the SEC, may be completed using these data as appropriate.
- The Board concurred with NIOSH’s recommendation to add the proposed class of workers to the SEC.

### Health Endangerment

The Secretary established the health endangerment determination for the class of employees covered by this report based upon the findings summarized below.

- (1) Pursuant to 42 C.F.R. § 83.13(c)(3), NIOSH established that there is a reasonable likelihood that such radiation doses may have endangered the health of members of the class. Pursuant to 42 C.F.R. § 83.13(c)(3)(ii), NIOSH specified a minimum

duration of employment to satisfy this health endangerment criterion as “having been employed for a number of work days aggregating at least 250 work days within the parameters established for this class or in combination with work days within the parameters established for one or more other classes of employees in the Cohort.”

- (2) NIOSH did not identify any evidence from the petitioners or from other resources that would establish that the class was exposed to radiation during a discrete incident likely to have involved exceptionally high-level exposures, such as a nuclear criticality incident, as defined under 42 C.F.R. § 83.13(c)(3)(i).
- (3) The Board concurred with NIOSH’s finding that the health of the class may have been endangered and defined the class according to the 250-workday requirement specified under 42 C.F.R. § 83.13(c) (3)(ii).

#### V. Effect and Effective Date of Designation

The Secretary submits this report on the designation of one additional class to the SEC for review by Congress, pursuant to 42 U.S.C. §§ 7384l(14)(C)(ii) and 7384q(c)(2)(A), as amended by the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005, Pub. L. No. 108-375 (codified as amended in scattered sections of 42 U.S.C.). Pursuant to 42 U.S.C. § 7384l(14)(C)(ii), as amended by the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005, Pub. L. No. 108-375 (codified as amended in scattered sections of 42 U.S.C.), the designation in this report will become effective 30 days after the date of this report’s submission to Congress “unless Congress otherwise provides.”

#### VI. Administrative Review of Designation

The health endangerment determination of the designation provided in this report may be subject to an administrative review within HHS, pursuant to 42 C.F.R. § 83.18(a). On the basis of such a review, if the Secretary decides to expand the class of employees covered by this designation, the Secretary would transmit a supplementary report to Congress providing the expanded employee class definition and the criteria and findings on which the decision was based.