

HHS Designation of Additional Members of the
Special Exposure Cohort
under the
Energy Employees Occupational Illness Compensation Program Act of 2000

Designating a Class of Employees from
Winchester Engineering and Analytical Center
Winchester, Massachusetts



I. Designation

I, Kathleen Sebelius, Secretary of Health and Human Services, 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.

August 23, 2012
Date

[Signature on File]
Kathleen Sebelius

II. Employee Class Definition

All employees of the Department of Energy, its predecessor agencies, and their contractors and subcontractors who worked at the Winchester Engineering and Analytical Center in Winchester, Massachusetts, from January 1, 1952, through December 31, 1961, for a number of work days aggregating at least 250 work days, occurring either 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.

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 August 1, 2012.

IV. Designation Findings

Feasibility of Estimating Radiation Doses with Sufficient Accuracy

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

- NIOSH determined that the principal sources of internal and external radiation exposures for members of the proposed class included exposures to uranium and thorium, including the progeny of these radionuclides, as found in various grades of ores, raffinates, and process effluent samples sent to the facility for analysis.
- NIOSH identified limited personnel internal monitoring data for select individuals for the years 1953, 1954, and 1955. The data are not comprehensive and there is no evidence to indicate these data are representative of the most highly-exposed workers at the Winchester facility, or to indicate that the available sample results are representative of all workers. Without additional personnel radiation monitoring data representing the period from 1952 through 1961, NIOSH has insufficient information to appropriately characterize radioactive material intakes during DOE operations at the Winchester Engineering and Analytical Center.
- NIOSH located little documentation as to the quantities of radiological materials shipped to the site for processing or testing. It is clear from reports and worker communication that the site worked with uranium and thorium. NIOSH also inferred from research reports that various forms of uranium-bearing materials were used in the sites' research. However, without additional documentation, NIOSH is unable to ascertain the quantity or forms of the source materials that may have been used or stored on site at any time during the period under evaluation.
- In the absence of adequate internal dose monitoring criteria and personnel monitoring data, NIOSH has not found sufficient general area air sampling, breathing zone air sampling, site survey, or source term information to allow it to bound potential exposures, or to demonstrate that workers were adequately monitored for potential exposure to radioactive material at the site during the operational period. Consequently, NIOSH finds that it is not feasible to estimate with sufficient accuracy the total internal dose for workers at Winchester Engineering and Analytical Center during the time period from January 1, 1952, through December 31, 1961.
- NIOSH does not have access to sufficient personnel monitoring, workplace monitoring, or source term data to estimate potential external exposures to uranium, thorium, or their progeny during the period of DOE operations at the Winchester Engineering and Analytical Center. Consequently, NIOSH finds that it is not feasible to estimate with sufficient accuracy the total external exposures to uranium or thorium and resulting doses for workers at Winchester Engineering and Analytical Center during the time period from January 1, 1952, through December 31, 1961. NIOSH has determined that adequate reconstruction of medical dose is feasible for workers at the Winchester Engineering and Analytical Center by using claimant-favorable assumptions and available procedures.

- NIOSH lacks access to sufficient information and documentation that would allow it to estimate with sufficient accuracy the potential internal and external radiological exposures to which the proposed class may have been subjected at the Winchester Engineering and Analytical Center in Winchester, Massachusetts for the period from January 1, 1952, through December 31, 1961.
- NIOSH has documented that it cannot complete the dose reconstructions related to this petition with sufficient accuracy for the employees who worked at the Winchester Engineering and Analytical Center in Winchester, Massachusetts for the period from January 1, 1952, through December 31, 1961. The basis of this finding demonstrates that NIOSH does not have access to sufficient information to estimate either the maximum radiation dose incurred by any member of the class or to estimate such radiation doses more precisely than a maximum dose estimate for that period.
- Although NIOSH found that it is not possible to completely reconstruct radiation doses for employees who worked at the Winchester Engineering and Analytical Center in Winchester, Massachusetts for the period from January 1, 1952, through December 31, 1961, NIOSH intends to use any reliable internal and external monitoring data that may be available for an individual claim during this period (and that can be interpreted using existing NIOSH dose reconstruction processes or procedures) to support a partial dose reconstruction for non-presumptive cancers and/or cases that have less than 250 work days of employment.
- Pursuant to 42 C.F.R. § 83.13(c)(1), NIOSH 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 of members of the class more precisely than a maximum dose estimate.
- The Board concurred with the NIOSH evaluation and recommended the proposed class for addition 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 (excluding aggregate work day requirements) 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-work day 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.