

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
Metals and Controls Corporation
Attleboro, 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.

December 10, 2009
Date

[Signature on file]
Kathleen Sebelius

II. Employee Class Definition

All Atomic Weapons Employees who worked at Metals and Controls Corp. in Attleboro, MA, from January 1, 1952 to December 31, 1967, 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 included in the SEC.

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 November 19, 2009.

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 lacks sufficient information, which includes thorium internal monitoring and/or air sampling data, to allow it to estimate with sufficient accuracy the potential internal exposures to thorium to which the proposed class may have been subjected.
- NIOSH finds that it is likely feasible to reconstruct with sufficient accuracy the occupational internal and external dose from uranium and radium as well as the medical dose for Metals and Controls Corp. workers.
- Principal sources of internal radiation for members of the proposed class included exposures to uranium, thorium, and radium (Ra-226). Exposure to uranium and thorium occurred during the fabrication of uranium- and thorium-bearing components (including reactor fuel, metallic alloys, and metallic foils). Exposure to radium was limited to a single process, involving the manufacture of electrical breakers containing radium-bearing luminescent markers.
- NIOSH has uranium urinalysis bioassay data for the period from 1953 through 1967. NIOSH lacks internal monitoring data specific to thorium exposures. The limited area air sampling results available to NIOSH are specific to uranium-processing operations and are inadequate to bound internal intakes from thorium operations. NIOSH has found no usable information with which to assess thorium air concentrations and has not identified sufficient documentation to define and quantify the total thorium source term during the period from 1952 through 1967.
- NIOSH has determined that reconstruction of internal dose from thorium is not feasible for the period from January 1, 1952 through December 31, 1967 due to the lack of thorium-specific monitoring or source term data.
- NIOSH has determined that reconstruction of the internal dose from uranium for monitored workers as well as internal exposure to radium is likely feasible.
- Principal sources of external radiation for members of the proposed class included exposures to beta and gamma radiation during the activities noted above. Additionally, there was external exposure from industrial radiography and non-destructive testing.
- NIOSH has obtained external monitoring data for the period from 1953 through 1967 and has determined that reconstruction of external dose for monitored workers is likely feasible.

- 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.
- 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 Metals and Controls Corp. during the period from January 1, 1952 through December 31, 1967, but who do not qualify for inclusion in the SEC, may be performed using these data as appropriate.

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. §§ 7384/(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. § 7384/(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.