

HHS 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

Joslyn Manufacturing and Supply Co.  
Fort Wayne, Indiana



## I. Designation

I, Kathleen Sebelius, Secretary of the 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.

[Signature on File]

March 6, 2013

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Kathleen Sebelius

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Date

## II. Employee Class Definition

All Atomic Weapons Employees who worked for Joslyn Manufacturing and Supply Co. at the covered facility in Fort Wayne, Indiana, from March 1, 1943, through December 31, 1947, 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 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 doses that the class received with sufficient accuracy under the two abovementioned 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 February 4, 2013.

## 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.

- Principal sources of internal radiation for members of the proposed class included exposures to uranium and uranium oxides released into the work environment during the production and shaping of uranium metal rods. Also, there was potential for internal exposure to airborne thorium released on two days as a result of experimental centerless grinding of thorium rods in 1946 and early 1947.
- The limited air sampling conducted at the time was based on mass samples collected by electrostatic precipitation. NIOSH does not have adequate information regarding the accuracy and uncertainties of this methodology and is not fully aware of the limitations and biases associated with this sample collection method. Also, NIOSH was not able to locate personnel monitoring data that could be used to support the limited air monitoring results.
- NIOSH lacks sufficient information, which includes specific biological monitoring data, air monitoring, process and radiological source information, and surrogate data from similar operations at other sites, that would allow it to estimate the total internal dose for workers at the Joslyn Manufacturing and Supply Co. facility in Fort Wayne, Indiana, during the period from March 1, 1943, through December 31, 1947.
- Principal sources of external radiation for members of the proposed class included exposures to gamma and beta radiation associated with handling and working in proximity to natural uranium and thorium metals during machining operations.
- NIOSH did not identify any external monitoring records, external area monitoring data, or personal dosimetry data associated with the uranium and thorium processing conducted during the period evaluated. However, NIOSH obtained data consisting of source term data in the form of shipping transactions and accountability and contractual recordings of uranium materials to be machined at the Joslyn Manufacturing and Supply Co. facility. In light of the information above, NIOSH concluded that sufficient data and information are available to estimate a bounding external dose from uranium and thorium by using the assumptions and approaches presented in Battelle-TBD-6000.
- NIOSH believes it is feasible to reconstruct external doses, including the medical x-ray dose, with sufficient accuracy for Joslyn employees who worked at the covered facility during the period from March 1, 1943, through December 31, 1952.
- NIOSH has documented that it cannot complete the dose reconstructions related to this petition with sufficient accuracy for Joslyn employees who worked at the covered facility during the period from March 1, 1943, through December 31, 1947. 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 the proposed class, NIOSH intends to use any internal 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 Joslyn during the period from March 1, 1943, through December 31, 1947, but who do not qualify for inclusion in the SEC, may be performed using these data as appropriate.
- 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 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 (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-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.