

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 from  
Norton Company  
Worcester, 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.

April 29, 2011  
Date

[Signature on file]  
Kathleen Sebelius

## II. Employee Class Definition

All atomic weapons employees who worked in any building or area at the facility owned by the Norton Co. (or a subsequent owner) in Worcester, Massachusetts, during the period from January 1, 1958 through October 10, 1962, 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.

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 March 30, 2011.

#### 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 members of this class may have received radiation exposures from internal and external radiation exposures to residual natural uranium and thorium metals during the tear-down, clean-up, and disposal of contaminated equipment and other materials in the early residual radiation period.
- NIOSH evaluated the feasibility of completing dose reconstructions for all atomic weapons employees who worked in any building or area at the facility owned by the Norton Co. (or a subsequent owner) in Worcester, Massachusetts from January 1, 1958 through October 31, 2009 (the entire residual radiation period). Although Atomic Weapons Employer (AWE) operations were not performed at Norton Co. after 1957, the Norton Co. performed decontamination and decommissioning of AWE materials and wastes from January 1, 1958 through October 10, 1962.
- NIOSH determined that it does not have adequate internal monitoring or workplace monitoring data to bound doses that were potentially received during the dismantling, clean-up, packaging, and burial of AWE-related materials and contamination during the period from January 1, 1958 through October 10, 1962.
- Although NIOSH has air monitoring data obtained during the AWE operations period at Norton Co. that can be used to bound doses following the burial operations which culminated on October 10, 1962, those data cannot be assumed to bound all radiological contamination levels that could have arisen from the dismantling, clean-up, packaging and burial processes which were documented to have generated dust during the 1958-1962 period.
- NIOSH has identified sufficient air monitoring data in the form of long-lived gross-alpha results, and short-lived thoria results, to support bounding internal dose estimates for the period starting on October 11, 1962 through the end of the residual radiation period on October 31, 2009.
- NIOSH has not identified any external dosimeter results obtained during the residual radiation period for the Norton Co. Therefore, NIOSH has determined that it has insufficient external monitoring data to bound potential external exposures for the period from January 1, 1958 through October 10, 1962.
- NIOSH determined that it can use derived contamination levels to calculate external dose rates for the period from October 11, 1962 through the end of the residual radiation period on October 31, 2009.

- Doses received from occupational medical X-rays are not reconstructed during residual radiation periods at AWE sites.
- NIOSH does not have access to sufficient personnel monitoring, workplace monitoring, or source term data to estimate unmonitored internal or external exposures for Norton Co. workers during the period of decontamination and decommissioning operations from January 1, 1958 through October 10, 1962. Consequently, NIOSH finds that it is not feasible to estimate, with sufficient accuracy, unmonitored internal or external exposures and resulting doses for workers at the Norton Co. during the period from January 1, 1958 through October 10, 1962.
- 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.
- Although NIOSH found that it is not possible to completely reconstruct radiation doses for employees who worked at the Norton Co. in Worcester, Massachusetts during the period from January 1, 1958 through October 10, 1962, NIOSH intends to use any reliable 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). Dose reconstructions for individuals employed at the Norton Co. during the period from January 1, 1958 through October 10, 1962, but who do not qualify for inclusion in the SEC, may be performed using these data as appropriate.
- 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. §§ 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.