

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

W. R. Grace and Company  
Curtis Bay, Maryland



## 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.

October 18, 2011  
Date

[Signature on File]  
Kathleen Sebelius

## II. Employee Class Definition

All Atomic Weapons Employees who worked at any building or area at the facility owned by W.R. Grace and Company in Curtis Bay, Maryland, for the operational period from May 1, 1956 through January 31, 1958, 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 September 19, 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 internal radiation exposures from inhalation and ingestion of dust generated during the various processes associated with monazite sands performed at the W.R. Grace and Company site in Curtis Bay, Maryland. Thorium was the only radionuclide refined during the operational period; internal exposure was primarily a concern during this process.
- NIOSH finds that it lacks sufficient personnel or area monitoring data, source term data, and operational information to support reconstructing internal and external dose with sufficient accuracy during the operational period at the W.R. Grace and Company site in Curtis Bay, Maryland from May 1, 1956 through January 31, 1958, which encompasses the period that AEC-related radiological operations were performed on site. Therefore, NIOSH finds that it is not feasible to estimate, with sufficient accuracy, the total internal and external dose for workers at the W.R. Grace and Company site in Curtis Bay, Maryland from May 1, 1956 through January 31, 1958.
- NIOSH lacks sufficient information, which includes specific biological monitoring data, air monitoring information, process and radiological source information, and surrogate data from similar operations at other sites that would allow it to estimate the potential internal and external radiological exposures for workers at the W.R. Grace and Company site in Curtis Bay, Maryland from May 1, 1956 through January 31, 1958.
- 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.
- NIOSH concluded that physical examinations involving medical X-rays were not performed at the site, and thus, not a covered exposure to be included in the dose reconstruction. Therefore, medical X-ray dose is not a consideration for workers at the W.R. Grace and Company site in Curtis Bay, Maryland.
- Although NIOSH found that it is not possible to completely reconstruct radiation doses for employees who worked at the W.R. Grace and Company site in Curtis Bay, Maryland from May 1, 1956 through January 31, 1958, 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). Dose reconstructions for individuals employed at the W.R. Grace and Company site in Curtis Bay, Maryland from May 1, 1956 through January 31, 1958, but who do not qualify for inclusion in the SEC, may be performed using these data as appropriate.

- During the residual radiation period, workers had a potential for internal and external radiation from residual surface contamination. NIOSH finds that it has access to sufficient area monitoring data and surrogate site information to reconstruct internal and external dose with sufficient accuracy during the residual radiation period from February 1, 1958 through October 31, 2009.
- 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 of employees 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.