

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  
Ames Laboratory at Iowa State University  
Ames, Iowa



## 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 Department of Energy (DOE) employees, its predecessor agencies, and its contractors and subcontractors who worked in any area of the Ames Laboratory at Iowa State University during the periods from August 13, 1942 through December 31, 1970, 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 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 the class evaluated may have received internal and external exposures to: uranium and thorium and their decay progeny during the production time periods; research quantities of radioactive materials used in the Hot Canyon within the Research Building; and tritium and argon-41, as well as gamma and neutron radiation from the Ames Laboratory Research Reactor during its operation.
- NIOSH does not have access to sufficient personnel monitoring, workplace monitoring, or source term data to estimate potential internal exposures to thorium and thorium progeny, as well as to other research radionuclides used within the Hot Canyon during the evaluated period of DOE operations. Consequently, NIOSH finds that it is not feasible to estimate, with sufficient accuracy, internal exposures to thorium and thorium progeny, as well as to other research radionuclides and resulting doses for the class of employees covered by the SEC-00185 evaluation. Therefore, NIOSH finds that it is not feasible to estimate, with sufficient accuracy, the total internal dose for workers at the Ames Laboratory at Iowa State University during the period from August 13, 1942 through December 31, 1970.
- NIOSH finds that it lacks specific biological monitoring data, sufficient air monitoring information, sufficient process and radiological source information, and surrogate data from similar operations at other sites to support estimating, with sufficient accuracy, certain external radiation doses for the period from August 13, 1942 through December 31, 1954, received by members of the proposed class of employees.
- NIOSH finds it cannot complete the dose reconstructions related to this petition with sufficient accuracy for the employees who worked at the Ames Laboratory at Iowa State University during the period from August 13, 1942 through December 31, 1970. 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.
- 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 Ames Laboratory at Iowa State University during the period from August 13, 1942 through December 31, 1970, 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 Ames Laboratory during the period from August 13, 1942 through December 31, 1970, 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.