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

Brookhaven National Laboratory
Upton, New York

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.

May 11, 2012	[Signature on file]
Date	Kathleen Sebelius

II. Employee Class Definition

All employees of the Department of Energy, its predecessor agencies, and their contractors and subcontractors who worked at the Brookhaven National Laboratory in Upton, New York, from January 1, 1980 through December 31, 1993, 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 April 11, 2012.

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 principal sources of internal and external radiation for members of the proposed class included exposures to plutonium, uranium, tritium, fission and activation products, transuranic radionuclides, nuclear reactors, linear accelerators, radiography equipment, and a wide variety of other radioactive materials, which could have occurred during the performance of reactor or accelerator operations, or the performance of research and development activities at the site.

- NIOSH has determined that, due to undocumented worker movements across the site and limited claimant-specific information pertaining to work locations, it is unable to eliminate any specific worker from potential exposure scenarios based on assigned work location.

- NIOSH lacks sufficient information, which includes in-vivo and in-vitro monitoring data that would allow it to estimate the potential internal exposures to which the proposed class may have been exposed. NIOSH evaluated the available personnel and workplace monitoring data and source term information and determined that there are insufficient data for estimating internal exposures for workers at Brookhaven National Laboratory during the time period from January 1, 1980 through December 31, 1993.

- Consistent with its findings associated with SEC-113, NIOSH finds that it lacks sufficient information, which includes in-vivo and in-vitro monitoring data, to allow it to estimate with sufficient accuracy the potential internal exposures to various radionuclides to which the proposed class may have been subjected.

- NIOSH has documented that it cannot complete the dose reconstructions related to this petition with sufficient accuracy for the employees who worked at the Brookhaven National Laboratory from January 1, 1980 through December 31, 1993. 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.

- NIOSH determined that it did not have access to sufficient source or source term information associated with Brookhaven National Laboratory operations to bound potential internal exposures from these radionuclides for the covered period.

- NIOSH has access to sufficient personnel monitoring and workplace monitoring data to bound potential external exposures for workers at Brookhaven National Laboratory during the period from January 1, 1980 through December 31, 1993.

- NIOSH determined it is feasible to estimate, with sufficient accuracy, the total external dose and occupational medical dose for the class of employees.

- NIOSH found that while it is not possible to completely reconstruct radiation doses for employees who worked at Brookhaven National Laboratory from January 1, 1980 through December 31, 1993, NIOSH intends to use any reliable internal and external monitoring data that may be available for an individual claim (and that can be interpreted using existing NIOSH dose reconstruction processes or procedures) to support a partial dose reconstruction for non-presumptive cancers and/or cases that have less than 250 work days of employment.

- 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.

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*l*(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*l*(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.