Larry J. Elliott
Director, Office of Compensation Analysis and Support
National Institute for Occupational Safety and Health
Centers for Disease Control and Prevention
Mail Stop C-46
4676 Columbia Parkway
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Re: Return of All Iowa Army Ammunition Plant Cases for New SEC Class for 1949 - 1974

Dear Larry:

On May 20, 2005, the Secretary of Health and Human Services, designated the following class for addition to the Special Exposure Cohort (SEC) in a report to Congress:

> Employees of the Department of Energy (DOE) or DOE contractors or subcontractors employed by the Iowa Army Ammunition Plant, Line 1, during the period from March 1949 through 1974 and who were employed for a number of work days aggregating at least 250 work days either solely under this employment or in combination with work days within the parameters (excluding aggregate work day requirements) established for other classes of employees included in the SEC.

This designation will become effective on June 20, 2005, as provided for under 42 U.S.C. 7384*l*(14)(C). Hence, beginning on June 20, 2005, members of this class of employees, defined as reported in this notice, became members of the SEC.

A report attached to Secretary Leavitt's letter entitled "HHS Designation of Additional Members of the Special Exposure Cohort" provided the supporting rationale for designating a class of employees from the Iowa Army Ammunition Plant, Line 1, for the period from March 1949 through 1974. That report stated that the Secretary of Health and Human Services has determined in regard to the above reference class that it is not feasible to estimate with sufficient accuracy the radiation dose that the class received.

Section IV, "Designation Findings," of the report for the March 1949 through 1974 period summarized his findings on this issue as follows.

> (1) NIOSH determined that, "… it lacks access to sufficient information to either 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 to estimate the radiation doses of members of the class more precisely than a maximum dose estimate with sufficient accuracy."
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> (2) "The 'work factor' evaluation initially proposed by NIOSH as a means of doing dose reconstruction for the period March 1949 - December 1962 is based, in part, on the assumption that workers who handled the pits did so for up to one hour per shift. Former workers at the Iowa Army Ammunition Plant (IAAP) offered credible statements that they handled pits during the period on question for significantly more than one hour per shift."
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> (3) "For the period January 1963 – December 1974, NIOSH has personal monitoring data that could be used to estimate radiation exposures at the IAAP. However, the Board in its deliberations found that it could not verify the representativeness of these data for use in assessing radiation exposures at the IAAP. In addition, personal exposures in some job categories with significant radiation exposures were never monitored."
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> (4) "For the period from 1957 to 1974, Line 1 employees at IAAP who worked in the "gravel gerties" were "… likely to have been exposed to naturally occurring radon and its progeny that could have been concentrated subsequently by the design and ventilation characteristics of these

unique constructions." It was determined that "… it was not feasible to estimate the maximum radiation dose to which employees of Line 1 of IAAP who worked in the gravel gerties might have been exposed from naturally occurring radon, or to estimate these doses more precisely."

(5) NIOSH proposed to use different methods for calculating dose, i.e., models for the period March 1949 – December 1962, and personnel monitoring data for the period January 1963 – December 1974. Using these two methods, the annual median external photon and neutron external doses for the two periods differed by more than a factor of ten. The Board concluded, and NIOSH concurs, that this significant difference demonstrates that NIOSH cannot estimate dose during this period with sufficient accuracy."

In that report, the Secretary of Health and Human Services has determined that it is not feasible to undertake dose reconstructions for the class of employees employed at Iowa Army Ammunition Plant, Line 1, for the period from March 1949 through 1974 based upon the site profile prepared by the National Institute of Occupational Safety and Health (NIOSH). Thus, it appears that the only dose reconstructions that can be completed for members of the designated class are dose reconstructions based upon actual measured exposure of the individual worker whose dose is being reconstructed.

Thus, NIOSH should return all cases concerning workers in this SEC class to the Department of Labor Denver District Office for the Office of Workers' Compensation Programs to complete adjudication as appropriate, except for those case in which you determine that NIOSH can complete a dose reconstruction based upon actual measured exposure of the individual worker whose dose is being reconstructed.

Sincerely,

Peter M. Turcic
Director, Division of Energy Employees
Occupational Illness Compensation