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**SC&A EVALUATION OF IDAHO CHEMICAL PROCESSING  
PLANT CLASS DEFINITION REQUIRING EVIDENCE OF  
EXTERNAL DOSIMETRY (1963–1974)**

**Contract Number 211-2014-58081**

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<b>S. COHEN &amp; ASSOCIATES:</b> <i>Technical Support for the Advisory Board on  Radiation &amp; Worker Health Review of  NIOSH Dose Reconstruction Program</i>	Document No.: Evaluation of CPP Class Definition
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Task Manager:  _____ Date: _____ John Stiver, MS, CHP	Supersedes:  N/A
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### Record of Revisions

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## ACRONYMS AND ABBREVIATIONS

ABRWH or Advisory Board	Advisory Board on Radiation and Worker Health
AEC	Atomic Energy Commission
CDC	Centers for Disease Control and Prevention
CFA	Central Facility Area
CFR	<i>Code of Federal Regulations</i>
CPP	Chemical Processing Plant
DCAS	Division of Compensation Analysis and Support (formerly Office of Compensation Analysis and Support (OCAS))
DFO	Designated Federal Officer
INL	Idaho National Laboratory
MTR	Material Test Reactor
NIOSH	National Institute for Occupational Safety and Health
NOCTS	NIOSH OCAS Claims Tracking System
SC&A	S. Cohen & Associates (SC&A, Inc.)
SEC	special exposure cohort
TLD	thermoluminescent dosimeter

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## EXECUTIVE SUMMARY

The National Institute for Occupational Health (NIOSH) released the Special Exposure Cohort (SEC) Petition Evaluation Report for SEC-000219 for the Idaho National Laboratory (INL) on March 12, 2015. On March 25, 2015, NIOSH/Division of Compensation Analysis and Support (DCAS) presented the Petition Evaluation Report at the 104<sup>th</sup> meeting of the Advisory Board on Radiation and Worker Health, which took place in Richland, Washington. NIOSH recommended the following class definition of workers for inclusion to the SEC class:

*All employees of the Department of Energy, its predecessor agencies, and their contractors and subcontractors who worked at Idaho National Laboratory in Scoville, Idaho, and were monitored for external radiation at the Idaho Chemical Processing Plant (CPP) (e.g., at least one film badge or TLD dosimeter from CPP) between January 1, 1963 and December 31, 1974 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 in the Special Exposure Cohort.*  
(NIOSH 2015)

At that time, the Advisory Board expressed concern as to the high level of confidence that is required to assure that class definition would not inadvertently exclude claimants who may have been exposed at the Chemical Processing Plant (CPP), but for whom dosimetry records are not available (see ABRWH 2015, pp. 187–210). SC&A was then tasked by the Advisory Board to investigate available dosimetry records in order to assess the validity of the class definition, as proposed by NIOSH.

This report presents SC&A's evaluation of the currently available records in the context of the requirements of the SEC class definition. Based on this assessment, SC&A has the following two findings and one observation:

**Finding 1:** The dosimetry records contained in NIOSH/OCAS Claims Tracking System (NOCTS) are not sufficient to accurately determine if a given claimant worked at the CPP (and thus qualifies for the SEC) for at least some workers, due to the absence of external dosimetry records designating the area worked.

**Finding 2:** Based on SC&A's evaluation of recently captured supplemental dosimetry records, as well as observed claimants with inadequate NOCTS records, it is apparent that the reviewed claimants who worked for the Atomic Energy Commission (AEC) or the prime contractor and who have direct evidence of work at CPP have at least one corresponding dosimeter badge associated with CPP to allow for SEC determination. However, SC&A could not locate corresponding dosimetry in the supplemental records for some claimants who worked as subcontractor trades workers and who have direct evidence of being assigned to CPP. Thus, SC&A was unable to validate the SEC class definition as proposed by NIOSH.

**Observation 1:** SC&A did not find any evidence that work locations provided in available area dosimetry cycle reports were contradicted by other work location-specific information contained

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in the claimant records. In nearly every instance, the areas specified in the dosimetry records comported perfectly with alternate information. The only exceptions were for two sampled claimants who submitted bioassay results that indicated “CFA,” while the dosimeter results indicated “MTR” (see Appendix C: C.6 and C.11).

**SC&A Recommendation:** It is SC&A’s opinion that the probability of a claimant being excluded from the SEC class based on absence of dosimetry records when, in fact, they worked in CPP is low for AEC and prime contract workers. However, the fact that SC&A was unable to locate dosimetry records for 3 of 12 subcontract employee claimants who had insufficient NOCTS records, as well as clear evidence of work at CPP, is problematic from an SEC implementation standpoint. Accordingly, it is imperative to determine whether reasonable evidence exists to mitigate the missing dosimetry record(s) for these and other potential claimants.

Additionally, SC&A believes that it would be instructive to conduct focused interviews with intermittent or transient subcontractors and trades workers to help determine if the policy of badging individuals entering relevant areas was universal for all workers and periods. Finally, it would be pertinent to ascertain what subcontractors supported radiological work activities at CPP (company identity and rosters) as a basis for whatever class definition is defined for the SEC.

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