ROCKY FLATS PLANT
SPECIAL EXPOSURE COHORT (SEC)
PETITION 00192
EVALUATION REPORT REVIEW

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Joe Fitzgerald, SC&A Team

Advisory Board on Radiation and Worker Health
Denver, Colorado
October 16-17, 2013
Background

• SEC – 00192 Evaluation Report issued on September 5, 2012
• Board determined that additional review required, including classified interviews and document reviews
• Work Group chair and SC&A participated in classified interviews and records review in November 2012
• NIOSH then performed additional interviews and data capture (e.g., LANL)
• Focus was on issues identified for estimating doses from tritium, neptunium, U-233 (with thorium strikes)
• Additional concerns raised by petitioner regarding alleged laboratory data falsification and other thorium exposures also pursued
Tritium White Paper

• Tritium White Paper issued on June 25, 2013
• Presents dose estimation approach for pre-1973, 1973, and post-1973; discussed at Sept 12, 2013, work group meeting
• SC&A identified potential calculational issues for 1973 and post-1973 period.
• SC&A questioned retrospective use of 1974 Battelle container contamination event to bound all pre-1973 tritium exposures; however, NIOSH finds no evidence that it would not bound
• Agreement that tritium releases were very small and resulting doses in mrem range
U-233/Thorium Strikes

• Initial NIOSH review found U-233 activities for mid-1960s through 1982, with multiple thorium strikes at least through 1970s
• SC&A participated with NIOSH in classified document reviews and interviews to confirm U-233 activities, scope, dates
• NIOSH established U-233 inventories at RFP until 1983, except for contaminated waste subject to later disposal
• NIOSH determined no internal monitoring at RFP was specific for U-233, U-232, or Th-228 for 1964-1983 period
• NIOSH briefed work group at Sept 12, 2013 meeting
Neptunium

- Initial NIOSH review found RFP was key fabricator and processor of Np-239 in oxide, metal, and metal alloy forms
- SC&A participated in classified interviews and record reviews to ascertain Np operational scope, source terms, dates
- NIOSH found no monitoring records specific to Np-237; inability to distinguish workers with potential exposure
- NIOSH concluded potential Np exposures for 1962-1983, with inventories onsite through 1988 (possible residual period)
- NIOSH briefed work group at Sept 12, 2013 meeting
Data Falsification/Data Invalidation

- NIOSH White Paper issued on June 25, 2013; concern by petitioners is over “crossover” implications of FBI findings of environmental monitoring discrepancies for worker bioassay program.
- SC&A participated with two interviews with former RFP workers with knowledge of bioassay program at time of 1989 FBI raid.
- SC&A reviewed key records including 1994 Grand Jury report and RFP pre- and post-FBI raid bioassay procedures.
- SC&A seeking three of four “Special Assessment Team” volumes that may be relevant to issue.
- Overall issue remains open pending completion of SC&A’s review and final reporting to the work group.