

NIOSH Evaluation of the Rocky Flats SEC Petitioners' Response to NIOSH's White Paper, *Evaluation of Petitioner Concerns About Data Falsification and Data Invalidation in RFP Building 123 Based on Worker Allegations and Issues Relating to the FBI Raid*

**White Paper
Rev. 0**

**National Institute for Occupational
Safety and Health**

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PURPOSE

This is the National Institute for Occupational Safety and Health's (NIOSH) response to the September 18, 2015, correspondence from the SEC-00192 Rocky Flats Plant (RFP) petitioners – [names redacted]. The petitioners identified their comments as a preliminary response in rebuttal to the points made in the NIOSH White Paper titled *Evaluation of Petitioner Concerns About Data Falsification and Data Invalidation in RFP Building 123 Based on Worker Allegations and Issues Relating to the FBI Raid*, Rev. 4.

PETITIONER COMMENTS AND NIOSH RESPONSES

PETITIONER COMMENT #1: In the section titled Premise for White Paper is Flawed, the petitioners state:

“NIOSH combines all of the issues raised by the petitioners and their relationship to Building 123. Each of the issues raised are separate concerns. Some concerns may be related to Building 123 but not all of the issues are. Therefore, each of the issues needs to be addressed on an individual basis. It is the petitioners’ position that the problems associated with each individual concerns is sufficient for NIOSH to determine they cannot reconstruct dose with sufficient accuracy. It is even more evident that, when combining the issues, serious questions are raised with the bioassay documents NIOSH uses to reconstruct dose.”

NIOSH RESPONSE: The focus of NIOSH's evaluation was to determine the impact of the concerns raised by the petitioners on NIOSH's ability to reconstruct doses for the SEC-00192 RFP evaluated class. The primary focus of the evaluation involved reviewing the availability and quality of personnel internal and external monitoring data in light of the allegations and issues raised by workers and the FBI. To avoid repetition, our responses to similar issues were consolidated in the white paper. While we believe each issue has been adequately addressed, if the petitioners have any additional issues that they believe are directly related to the adequacy of individual dosimetry data, we suggest that they provide them to NIOSH for review. While we welcome all comments, we would be specifically interested in information related to shortcomings in monitoring data that would prevent NIOSH from reconstructing doses with sufficient accuracy.

PETITIONER COMMENT #2: In the section titled Record Destruction, the petitioners state:

“NIOSH asserts that the table found on page 27 of the white paper proves that records were not destroyed and that they have sufficient samples to reconstruct dose.

The first cause of concern for the petitioners is the relatively low number of samples listed. For instance, the paper states that the number of employees reached a peak of 5990 in 1984. It is unclear if this number is the total number of employees who were onsite that year or if the number reflects only workers who were monitored. If it is the latter, NIOSH has only 10,468 urine samples for that year. This equates to less than two samples per employee and does not appear to be an adequate number of samples to base dose reconstruction on.”

The petitioners raise a second concern, stating:

“The second concern is that no fecal samples are listed for years 1980 through 1988 – eight full years. NIOSH explained in an email that they do indeed have fecal bioassay for those years, however, stated, “We did not have the specific number of samples for the years prior to 1989 so they were not included in the table.”

The petitioners discuss document destruction providing statements and analyses to support that claim. They discuss an interviewee’s issue with NIOSH’s characterization of the documents that may have been destroyed at RFP, denoting:

“The worker vehemently objected to this mischaracterization of her experience during the July 2015 Board meeting. NIOSH and the Board were provided with a copy of her email contradicting NIOSH’s interpretation. Additionally, one of the worker’s supervisors came forward with a separate email confirming the type of records destroyed.”

The petitioners further state:

“The petitioners are fully aware that this document only proves that records that potentially could have an effect on dose reconstruction were destroyed prior to 1989 but this document, coupled with the 1996 DOE moratorium on destroying records and other evidence, should convince NIOSH and the Board of the veracity of the worker’s testimony on September 18, 2012. NIOSH accepts the word of the workers who support their position often without documents to

support the testimony. The petitioners respectfully demand that the same consideration be given to the workers whose testimony supports the position of the SEC petition 00192.”

NIOSH RESPONSE: Table 1 of the White Paper provides NIOSH’s assessment of the available personnel internal monitoring data at Rocky Flats. The assessment presented in the White Paper discussed in this petitioner comment is a summary of information collected and presented in the SEC-00030 RFP Evaluation Report (ER) and is intended to qualitatively describe the variations in the number of bioassay samples collected over time. The petitioners’ analysis of the average number of urine samples per individual for 1984 incorrectly assumes that every worker employed at RFP in 1984 had a potential for internal exposure and was required to provide a bioassay sample. Therefore, the average number of samples provided per worker at Rocky Flats would not be an appropriate metric to use in evaluating the adequacy of the RFP bioassay sampling program.

The petitioners’ concerns about the lack of fecal sampling at RFP during certain years do not impact the ability to bound dose. While it is true that fecal analyses provide for the detection of lower levels of intake, they are not necessary to bound inhalation intakes of radioactive material. Urine analyses, which are less sensitive than fecal samples, can be used to bound intakes as well. Because of this, the lack of fecal monitoring records does not impact NIOSH’s ability to bound internal dose.

The petitioners requested that NIOSH provide the number of fecal sample results it has access to for the 1980-1989 period. Based on a review of the documentation available to NIOSH, there are slightly more than 1000 sample results over that period.

The record destruction issue and the petitioners’ issues regarding NIOSH’s statements related to records destruction appear to be referring to the *Reviewer Response* of Section 2.1, which is a summary of the interview notes. The NIOSH reviewer’s conclusions are based not only on the associated interview, but also on the information gained from other interviews and the documentation examined during DCAS’ research of this topic. In addition, the statements from an interviewee and petitioner contributor lead to the impression that the destroyed information is related to field types of surveys. These statements referring to destroyed information include, but are not limited to, references to: (1) dose rate; (2) immediate readings from Radiation Control Technicians (RCTs); (3) contamination reports; and (4) surveys.

In addition, the petitioners' contributor provided information that pointed to field surveys, including:

- *“Contamination Reports when high levels were taken destroyed and no written record allowed to be on any ‘Official Record.’”* NIOSH: “Contamination reports” imply field surveys.
- *“Secretaries were ordered to destroy by shredding the following medical records, dosimeter records, immediate Readings from RCT on jobs when dose came in too high!”* NIOSH: “Immediate readings from RCTs on jobs” implies field surveys.

These statements provide evidence that there is a lack of clarity on the types of documents that were destroyed, providing some support to the point that the NIOSH reviewer made during the initial research of this topic. NIOSH did not intend, however, to imply that the information the interviewee destroyed was definitely field surveys. It was only providing a possible scenario that fit all the information provided. NIOSH agrees to revise the report to remove any applicable statement that questions the interviewee's recollection of the type of data that was destroyed.

The topic of records destruction was continued by the petitioners in their rebuttal, where the previously assessed memo issuing a moratorium on records destruction at RFP was re-emphasized. A new listing of the types of records that were destroyed was also provided. As previously noted by NIOSH, this information does not specifically identify any radiological dosimetry records that would impact the NIOSH assessment; therefore, there is no factual-based conclusion that can be drawn in regard to the destruction of personnel monitoring records based on this information.

PETITIONER COMMENT #3: In the section titled Problems with Building 123 Dosimetry Lab, the petitioners have provided excerpts from a Defense Nuclear Facilities Safety Board (DNFSB) report, stating:

“The petitioner’s original assertion that the labs in Building 123 was out of compliance came from the Environmental Assessment as requested by Department of Energy’s then-Secretary James Watkins. It is NIOSH’s position that testing done on environmental samples and worker bioassays were performed by different groups.”

Based on the petitioners' analysis of the information that relates to the handling of samples in Building 123, they conclude:

“It is obvious that serious problems existed with the bioassay lab in Building 123 at least from 1989 and until 1993, at a minimum.”

The petitioners also provide information from the [name redacted] RFP diary, stating:

“The Rocky Flats Manager for Rockwell International, [name redacted], also admits that there are problems with the dosimetry program.”

NIOSH RESPONSE: The petitioners brought up a previously reviewed issue of the difference in the Building 123 Environmental and Occupational Radiological monitoring programs. The petitioners provided a quote from a DNFSB report that talks about the program, but not about the data. The “problems” identified in the report in regard to the on-site lab, which affected the radiological bioassay program, involved personnel resources and Resource Conservation and Recovery Act (RCRA), not the actual data. The second quote mentions contractors and issues with how they are included in the bioassay program. While a tracking system was not identified, the report did note that deficiencies were identified by other means. As previously assessed in the White Paper, and reviewed by the Advisory Board and SC&A, this information does not impact the ability to bound the internal dose at RFP; the statements and reviews from the petitioners in this latest rebuttal does not provide new information that changes or impacts that NIOSH’s conclusion.

The petitioners raised concerns about refrigerating biological samples. This issue has been addressed in previous Advisory Board and SC&A reviews of the NIOSH White Paper and does not provide new information that impacts the ability to bound dose for the proposed class. As previously noted, the growth of bacteria in samples, while a nuisance from a hygiene perspective, does not impact the radiochemical analysis of the samples. In addition, the complaint about the operation of a timely bioassay program (timely follow-ups to positive results and compliance with exposure limits) at the site does not invalidate the samples and results for the purpose of reconstructing dose for the class evaluated by NIOSH.

Finally, the petitioners brought up the [name redacted] diary notes, which have been thoroughly addressed in NIOSH White Papers and reviewed by the Advisory Board and SC&A. None of the issues or topics in the petitioners' rebuttal were identified as new issues, nor was there new information provided that would require additional response.

PETITIONER COMMENT #4: In the section titled Air Sampling Deficiencies, the petitioners discuss faulty Selective Alpha Air Monitors (SAAM)/Continuous Air Monitor (CAM) alarms and their impacts on NIOSH dose reconstruction, stating:

“The white paper minimizes the effect of faulty or non-working SAAM/CAM alarms and the effect on dose reconstruction. That apparently is not the position of the Rocky Flats employees who were interviewed by the DNFSB as related on page 8 of their September 21, 1994 report.”

The petitioners mention another statement from a DNFSB report regarding the operations of CAMs and the difference in actual detection limits and the limits required by the U.S. Department of Energy (DOE) Reliability-Centered Maintenance (RCM), noting some timeliness issues with the sampling and stating:

“It is evident that air monitoring is directly related to the bioassay program because the first step in knowing of a potential intake would be to have the alarms sounded for increased radiation in the work area.”

NIOSH RESPONSE: The petitioner's issues regarding detection limits in SAAM/CAMs on site and the requirements of the DOE RCM for CAMs do not impact the actual bioassay data that are available to NIOSH. These findings do not dispute or change the NIOSH White Paper conclusion in regard to the availability of bioassay data to support the ability to bound dose for the evaluated class.

The petitioners express concerns about the site's approach to estimating personnel exposures during a particular incident on November 30, 2000. It should be noted that NIOSH does not directly use the site's dose reconstruction methodology information relayed in this case in the reconstruction of Energy Employees Occupational Illness Compensation Program Act (EEOICPA) claims. While the methodology that is described in the petitioner's rebuttal is similar, NIOSH performs its own dose assessments in accordance with NIOSH Dose Reconstruction (DR) procedures and processes.

Any issues regarding counting delays for personnel, while potentially impacting the site's timely response to an exposure issue, do not impact NIOSH's ability to bound dose because the bioassay results are available – a point that is not disputed in the petitioners' discussion.

PETITIONER COMMENT #5: In the section titled Data Falsification, the petitioners discuss the “penciled-in” statements regarding personal dosimetry records, stating:

“The petitioners supplied two documents from a workers dosimetry records. One had the readings crossed out and the other had the original radioactive element whited out and replaced with possibly a different radionuclide. In addition, a worker was interviewed by NIOSH. The worker provided clarification of her statements to NIOSH during the July 23, 2015 Board meeting, page 403 <http://www.cdc.gov/niosh/ocas/pdfs/abrwh/2015/tr072315.pdf>.”

NIOSH RESPONSE: The issue of penciling-in results has been assessed as part of the ongoing assessment documented in the associated NIOSH White Paper that has been reviewed by the Advisory Board and SC&A. NIOSH has thoroughly investigated and followed-up on this petitioner issue/claim. The follow-up included discussions with other interviewees as well as document reviews. The petitioners have not provided new information that changes the conclusion presented in the NIOSH White Paper in regard to the data and documentation investigation, and the impact on the ability of NIOSH to bound dose for the evaluated class, remains unchanged.

PETITIONER COMMENT #6: In the section titled FBI Raid, the petitioners briefly discuss the Federal Bureau of Investigation (FBI) raid and the potential issues raised beyond the environmental focus of the raid, stating:

“[Name redacted], FBI Special Agent who led the raid, provided NIOSH and the Board his critique of the white paper. The petitioners urge NIOSH and the Board to thoroughly review this report and the supporting documents. The petitioners wish to remind everyone that the FBI raid was a precedent. Never before has one government agency raided another's facility because of criminal activity. Yes, the main focus of the raid was investigating environmental crimes; however, this raid precipitated oversight of all activities including worker safety and health at Rocky Flats by other government entities.”

NIOSH RESPONSE: The NIOSH assessment of the FBI raid has been documented in its White Paper and associated follow-up responses. NIOSH has thoroughly investigated and followed-up

on the raid, which has included discussions with other interviewees as well as significant document reviews and that has been vetted by the Advisory Board and SC&A. The petitioners have provided no new information to change the conclusion presented in the NIOSH White Paper in regard to the data and documentation investigation, and the impact on the ability of NIOSH to bound dose for the evaluated class.

PETITIONER COMMENT #7: In the section titled Conclusion, the petitioners document their disagreement with the findings that NIOSH has relayed in their White Paper, noting:

“The petitioners have provided ample documented evidence, here and in previous communications, confirming that documents were destroyed; that there were problems with the Building 123 bioassay lab; and that proper air monitoring is necessary for an accurate bioassay program. These documents support the testimony of the interviewees recommended by the petitioners. The FBI raid uncovered problems with Building 123 bioassay lab, which resulted in greater oversight by Department of Energy. Despite the increased oversight and new regulations, the bioassay program was still inadequate to one degree or another up to the end of 2000.

It is clear the accuracy of the dosimetry records NIOSH has for Rocky Flats claimants needs to be questioned. These records are unreliable. Therefore, NIOSH must admit that dose reconstruction cannot be performed with reasonable accuracy, and must recommend expanding the SEC.”

NIOSH RESPONSE AND CONCLUSION: Based on its review of the rebuttal document from the petitioners, NIOSH’s concludes that no new information has been presented that impacts its ability to bound, or reconstruct with sufficient accuracy, the dose for the class evaluated in the SEC-00192 RFP ER under the requirements of the EEOICPA and the Special Exposure Cohort (SEC) Rule. Therefore, the conclusions as presented in the NIOSH White Paper discussed in this review remain unchanged.