



NIOSH Dose Reconstruction Project Rollout Meeting for the Kansas City Plant Site Profile

Meeting Date:

October 19, 2005, 4:00 p.m.

Meeting with:

Security Police and Fire Professionals Association Local 251, Kansas City, Missouri

Name	Organization
Jack Haines	SPFPA Local 251
John Barber	SPFPA Local 251
Howard T. Eye	SPFPA Local 251
Richard Dziedzic	SPFPA Local 251
Jim Lumpkin	SPFPA Local 251
Ed Hedricks	SPFPA Local 251
Randy Lutjen	SPFPA Local 251
Steve Glynn	SPFPA Local 251
Tim Harper	SPFPA Local 251
Several attendees chose not to sign in.	

NIOSH and ORAU Team Representatives:

Grady Calhoun – National Institute for Occupational Safety and Health (NIOSH), Office of Compensation Analysis and Support (OCAS)

Jack Fix – Dade Moeller Inc., Site Profile Team Leader

Mark Lewis – Advanced Technologies and Laboratories International Inc. (ATL)

Mary Elliott – ATL

Proceedings

Mr. Lewis began the discussion at 4:00 p.m. by thanking the union representatives for inviting the Worker Outreach Team to their meeting. He described how his union background in the nuclear weapons complex led to working for the passage of the Energy Employees Occupational Illness Compensation Program Act (EEOICPA), which led to his employment with ATL as a union outreach specialist on the NIOSH dose reconstruction project.

Mr. Lewis introduced the team and said they were present at the meeting to talk about the Kansas City Plant Site Profile. He explained that the Site Profile Team uses government and contractor records during the development of the site profile documents. NIOSH and ORAU are interested in getting information from former workers that may not be included in the records from the U.S. Department of Energy (DOE) and its contractors at the sites. Labor input is important because the “official” records do not always accurately reflect the work practices and radiation safety issues at a given site. When the Site Profile is complete, it provides information for use in the radiation dose reconstruction process for EEOICPA claimants under Subtitle B.



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Mr. Lewis asked the attendees to introduce themselves and noted that a sign-in sheet was being circulated. He also mentioned that Ms. Elliott was taking notes and making a recording for use in preparing minutes to ensure that all concerns and questions were being accurately captured, but not to identify who made the comments.

Mr. Lewis introduced Grady Calhoun from the NIOSH Office of Compensation Analysis and Support (OCAS). Mr. Calhoun stated that he is a health physicist on the Dose Reconstruction Team at NIOSH. He explained the claims process:

- A claim is filed with the U.S. Department of Labor (DOL) by an employee of a Department of Energy (DOE) site or an Atomic Weapons Employer (AWE). If the employee is deceased, the claim may be filed by an eligible survivor.
- DOL verifies (1) whether there is a compensable illness, and (2) whether the employee worked at one of the covered facilities.
- If both criteria are met, the claim is then sent to NIOSH for a radiation dose reconstruction. NIOSH requests the employee's records from the facility through the DOE (radiation dose records, medical records, incident reports, etc.)
- All claimants on the case are interviewed by telephone for exposure history information on the employee.
- ORAU begins the dose reconstruction process using the site profile and other technical documents, as well as the personal information for the employee. A draft dose reconstruction report is written and forwarded to OCAS and the claimant(s) for review.
- The claimant is contacted again to review the dose reconstruction and to ascertain if all information has been included. If there is any additional information, the dose reconstruction is reworked.
- After the claimant acknowledges that there is no additional information, they are asked to sign a form. The case is then forwarded to the DOL for a final decision on whether or not the claim will be awarded.
- If the case is denied, DOL adjudicates the appeal.

Jack Fix said that the information packet provided at the beginning of presentation contains important information, including the Site Profile and other information on Dose Reconstruction, as well as the web site address to view the information online.

Mr. Fix explained that the purpose of the presentation is to present the Kansas City Site Profile. He said that at a previous meeting on September 15, 2004, union officials from the plant gave the Outreach Team information that was included in the Site Profile. He stated that it is a "living document" and that comments received after this meeting may be incorporated into future revisions if they are relevant to dose reconstructions.

The Energy Employees Occupational Illness Compensation Act (EEOICPA) includes guidelines for compensation under two Subtitles. The program involves interaction between three



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government agencies – the Department of Labor, the Department of Energy, and NIOSH. NIOSH created OCAS to provide oversight for the dose reconstruction process. Because of the large size of the project, a team of contractors headed by Oak Ridge Associated Universities (ORAU) was hired to assist with the dose reconstructions

Risk models developed by the National Cancer Institute (NCI) are a central component of the computer program used in the dose reconstructions. The program is used to determine the likelihood that the claimant's cancer is related to radiation.

The DOL has forward over 18,000 cases to OCAS for radiation dose reconstruction. Of those cases, over 10,000 have been completed. Over \$1.25 billion has been awarded in compensation for the program.

NIOSH and ORAU are interested in getting input from workers at the site regarding the accuracy of the Kansas City Plant Site Profile. The Site Profile is a collection of site-specific information that discusses the radioactive materials present at the site, the work practices, safety programs, dosimetry programs, workplace hazards, types of radiological instrumentation, and other basic information that is necessary to do dose reconstructions for the site. The Site Profile Team was established in May 2004. The completed document has been approved by NIOSH and can be viewed on the NIOSH website: <http://www.cdc.gov/niosh/ocas/ocastbds.html#kcplant>.

A dose reconstruction generally involves four specific areas: occupational medical X-ray dose, environmental dose, internal dose, and external dose. The NIOSH program is proactive in looking at incidents of “missed dose” that may not be in a worker's radiological record – missing information is considered and the potential dose is calculated and added into the worker's radiation dose.

Mr. Fix said that the thing that most impressed him as he worked on the Site Profile is that the Kansas City Plant is a world-class analytical laboratory that has many inspection and analysis capabilities as well as a relatively low radiological risk facility. Most of the radiation handled at the plant is from sealed sources or radiation generating devices such as X-rays or neutron radiography. The site played a major role in the success of the United States' nuclear weapons program by maintaining the integrity of the non-nuclear components of the devices.

Substantial amounts of depleted uranium were handled at the Kansas City Plant from 1959 to 1971. Routine urinalysis was implemented during this time period, and the data have been analyzed in making conservative estimates of the radiation dose to individual workers.

Occupational medical dose is assigned to workers based on the history of the use of medical X-rays at the site. Original records of the program at the Kansas City Plant appear to be complete. NIOSH assumes one X-ray per year per worker when records are not available and a default value for the medical dose is assigned in an effort to be favorable to the claimant.

There is no evidence of any environmental radiological impact at the Kansas City Plant. No documentation has been found to indicate any significant off-site levels of contamination – no off-site airborne concentrations. There may, however, have been inadvertent low-level exposures



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for non-monitored, non-radiological workers. For that reason, two changes to the Site Profile are under way: one for external radiation exposure and another for potential intakes of depleted uranium. These changes are related to the promethium-147 incident in 1989. A dose has been assigned to ensure that exposure from that incident is not underestimated.

The only documented intakes for internal dose are from the depleted uranium that was the primary source of exposure from 1959 to 1971 and after 1997. Distributions from these doses are used to assign radiation doses for claimants based on three categories: monitored radiological workers, non-monitored radiological workers, and non-monitored non-radiological workers. Uranium urinalyses are available for many workers.

Most radiation sources at the Kansas City Plant are sealed, so there is no significant internal dose. The incident with promethium-147 in 1989 was highly visible, and several government agencies responded: the Missouri Department of Health, the Environmental Protection Agency, and the Kansas City and Albuquerque offices of DOE. A 385-page report of the investigation issued in September 1989 concluded that there was no potential intake, even though contamination was found in some of the workers' homes and cars. The guards were involved to some degree.

Comment:

That was an X-ray leak in the X-ray department

Jack Fix:

The source was a device from Oak Ridge that was used as a film gauge.

Response:

A lot of that went to the roof – nothing happened.

Jack Fix:

Promethium-147 is a low energy beta-emitting nuclide that has a 2.6 year half-life. I am sure it was a significant event here. It does not appear to have resulted in a potential dose to workers. The official record says there was none.

The goal of the site profile team is to develop a comprehensive technical document for the health physicists on the dose reconstruction team. NIOSH and ORAU encourage input from the workers at the site to achieve this end. Information and suggestions for revisions to the document can be sent directly to NIOSH using the contact information included in the presentation. Other information on the EEOICPA program can be found on the NIOSH web site at this address: <http://www.cdc.gov/niosh/ocas>.

Mr. Lewis thanked the union leadership for asking the team to participate in their meeting. He said the team would be available to answer any questions after the regular union business concluded.