



NIOSH Dose Reconstruction Project Meeting On the Rocky Flats Profile

Date:

June 23, 2004

Meeting with:

Colorado State Building and Construction Trades Council

Attendees:

Ray Malito	DOE Resource Center	Henry Solano	U.A. Pipefitters Local #208
Carolyn Boller	Congressman Mark Udall's office	Tom Oldfield	U.A. Pipefitters Local #208
Ed Mangusso	SMW Local #9	Henry McCoy	Boilermakers Local #101
Steve Smith	INEC Local #25	Doug Shoufel	Laborer's Local #101
Les Andre	U.A. Sprinkler Fitters Local #669	Dan Owens	Operating Engineers Local #9
Terri Kuehn	Labor's Community Agency	Bill Dikeman	Operating Engineers Local #9
Ed Krueger	US Department of Labor	Mike Burch	International Brotherhood of Electrical Workers Local #68
Kurt Strenholt	United Association Local #3	Duane Tidwell	International Brotherhood of Electrical Workers Local #68
Eduardo Canales	Mountain West Regional Council of Carpenters	Scott Seegmiller	U.A. Sprinkler Fitters Local Union #669
Ron Hobbs	Asbestos Local Union #28	Dale O'Dell	U.A. Sprinkler Fitters Local Union #669
Ron Thorp	U.A. Pipefitters Local #208	Ray Haydon	U.A. Sprinkler Fitters Local Union #669
Joe DuPont	I.U.E.C. Local #25	Steve Jones	U.A. Sprinkler Fitters Local Union #669
Neal Hall	Colorado Building and Construction Trades Council	Pete Mustacchio	Plasterers & Masons Local #577
Arnold Vigil	Laborer's Local #270	Bill Bargas	Plasterers & Masons Local #577
Timothy R. Reed	Ironworkers Local #24	Bob Mansanares	US Department of Labor

NIOSH and ORAU Team Representatives:

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

William Murray – Oak Ridge Associated Universities (ORAU)

Robert Meyer – Rocky Flats Plant Site Profile Team Leader

Vernon McDougall – ATL International Inc.

Mark Lewis – ATL International Inc.

Dawn Catalano – ATL International, Inc.

Proceedings

The meeting started about 9:15 a.m. with the Pledge of Allegiance and announcements of local concern. Following union business, Mr. Neal Hall of the Colorado Building and Construction Trades Council commented on his trip to Washington, D.C., seeking resolution to issues and concerns of the union, and that he was pleased with the result. He said that Mr. Vernon McDougall contacted him shortly after his trip, and provided useful information and coordinated the meeting. He turned the meeting over to Mr. McDougall who thanked everyone for giving the Outreach Team time at their meeting. He then summarized his background and experience as well as that of the other team members. He introduced the team members present and gave a



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brief overview of the compensation program and the Site Profile. He explained what parts of the compensation program were relevant to this meeting and which Federal Departments are involved. He said that the Team has been working with the Center to Protect Workers Rights and have previously met with several Building Trades Councils. He said that he understands that the Site Profiles may not appear to represent Building Trades' issues, but he noted that NIOSH and ORAU are working to add sections to address Building Trades' issues separately. Mr. McDougall asked everyone to introduce themselves, and then turned the meeting over to Brant Ulsh from NIOSH.

Mr. Ulsh also thanked everyone for hosting the meeting and said that the objective was for an open exchange of information. He said that the topics of the presentation would be the approach to performing dose reconstructions at Rocky Flats. He stated that the team recognizes that the workers have valuable information that only those who worked on the site would have. He encouraged the attendees to make comments and suggestions at any time during the presentation as their input would help NIOSH and ORAU to do more accurate dose reconstructions. Mr. Ulsh thanked everyone again and introduced Mr. William Murray to begin the presentation.

Mr. Murray welcomed everyone to the meeting and thanked them for allowing time for his presentation. He asked if everyone had a copy of the two handouts – the Introduction for the Site Profile and the presentation to follow along. He also asked that everyone be sure to sign in for accurate records. He explained that Ms. Catalano would take minutes for a formal record of the meeting. There was also a recorder being used to make sure the minutes are accurate, but that it would not be used to identify anyone who made a comment. He said Neil would distribute the minutes to the unions and that they would be posted to the NIOSH website once approved. Mr. Murray explained that the outreach program was still fairly new and that the team is still learning the processes to make a meaningful and productive program.

Mr. Murray stated that the presentation was about the development of the Site Profile as it relates to the Energy Employees Occupational Illness Compensation Program Act (EEOICPA). He reiterated that this was only in regard to radiation exposure and cancer, and does not have anything to do with chemical exposure. He explained that the program provides \$150,000 in compensation and payment for medical expenses for the treatment of the cancer after an award is made. He also discussed who is eligible to submit claims, including employees of atomic weapons employers who worked with radioactive materials, citing the Bethlehem Steel claimants, and of all Department of Energy (DOE) and predecessor sites, encompassing a total of approximately 300 sites. He mentioned the other federal agencies' involvement in the program, including DOL's role in verification of employment and NIOSH's role in performing dose reconstructions. Mr. Murray then described the relationship between NIOSH and ORAU in the process of dose reconstruction and the outreach program. He explained the Special Exposure Cohort (SEC) as a site for which dose reconstruction would not be possible, and mentioned the four sites that are currently SECs (the gaseous diffusion plants in Piketon, OH, Paducah, Kentucky, and Oak Ridge, Tennessee and the .

To explain the dose reconstruction process, Mr. Murray said all available information must be used, and not only what DOE provides. This is done to identify information gaps. When information is not available, NIOSH makes assumptions that are favorable to the claimant.



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These are professional judgments of the Health Physicists who are responsible for performing the dose reconstructions that need to be done for all radiation-related compensation claims.

Mr. Murray explained that the Rocky Flats Site Profile is used by the health physicists when they have to go in to put together a dose for a given claimant. At this point Mr. Murray made a statement that the Team is in an interactive mode, and wants to gather any information that workers have to make the Site Profiles more accurate, and to answer any questions they might have. Other program goals are to protect the privacy of the claimant due to the sensitive information NIOSH and ORAU have on file. He said that anyone who works on the program has to go through Privacy Act training. He said NIOSH and ORAU want to process claims accurately, fairly, and efficiently. He said that using Site Profiles makes it possible to be consistent – using the same information minimizes the need to interpret data. A final goal Mr. Murray described was avoiding conflict of interest, both real and apparent. He said that the health physicist who does the dose reconstruction can not have worked at the site. For example, if the health physicist had worked at Rocky Flats, he or she could not do a dose reconstruction for anyone who had worked there. Likewise, he said, although many health physicists worked for DOE in the past, they could not write the Site Profile section for any site at which they served in a managerial position. NIOSH planned to capitalize on the expertise of the most experienced people, but later recognized the possible conflict of interest. Mr. Ulsh supported this point by adding that all documents are reviewed and approved by NIOSH.

Mr. Murray next explained the occupational radiation dose that goes into a dose reconstruction includes medical dose, environmental dose for unmonitored workers, and occupational internal and external doses. The medical dose comes from employer-required medical x-ray exams, usually chest X rays. Production workers are usually required by the employer to have chest X rays, the building trades workers may not have had them required. The environmental dose covers your exposure from radioactive materials in the air and radiation sources around the site when you were not necessarily working on production. Formal DOE records only include internal and external dose records for monitored workers. The medical dose and the environmental dose will not show up in any DOE record – this is something NIOSH and ORAU do to be claimant-favorable.

Mr. Murray moved on to a discussion of the contents of the Site Profile, explaining that it contains much information about the activities and processes and buildings and areas at the Rocky Flats Plant since it opened. He said the focus of the document is on radiation protection practices and measures at the site. He added that it was prepared by a team of experienced radiation protection specialists in health physics who performed a review of selected records under Bob's leadership. He explained that, despite concerns that the information came from Atomic Energy Commission and DOE records, we have to use this information because that is the only documentation available. State records may be used for releases outside the site in certain cases, but NIOSH is looking for more site-specific information from workers.

Mr. Murray next described the types of information that go into the Site Profile include radiation sources used on the site and the potential radiation exposures, and the radiation dosimetry program. This covers the entire time the site has been operational. He explained how the Site Profiles are broken into Technical Basis Documents (TBDs), which are essentially technical handbooks. He said they are living documents, subject to change and revision when new



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information becomes available. These TBDs assist NIOSH and the ORAU team in performing the dose reconstructions, ensuring consistency and minimizing the need for interpreting data. Mr. Murray directed interested parties to find the Site Profiles and approved sections at the NIOSH website. He discussed the review process that is required by NIOSH and ORAU prior to any section can be approved and published on the website.

Mr. Murray gave a brief description of the contents of each section of the Site Profile and how they are used to assist health physicists in performing dose reconstructions. The activities at Rocky Flats include the manufacture of plutonium triggers and other weapons related products, the recovery of plutonium from weapons, waste processing, and other activities involving radioactive materials, such as, plutonium and enriched and depleted uranium.

He explained how medical x-ray doses are added to the dose reconstruction, provided they were a condition of employment. He said that these were most often chest x-rays, but records show that lower back x-rays were taken at some sites.

Mr. Murray explained that the environmental dose is calculated from radioactive materials in the air or from radiation sources in buildings where non-radiation workers who were not monitored may have been exposed. The internal dose results from radioactive materials in the air on the site that workers breathed in. He said we were aware that three (3) isotopes of plutonium and enriched and depleted uranium were released in the air on the site. He further explained that external doses came from materials that were present in the environment, such as, radioactive materials in storage areas and waste pits. He added that instructions are included in the Site Profile for using these doses in the reconstruction process.

Mr. Murray explained that the internal dosimetry is used at Rocky Flats to document and measure any radioactive materials in the body. We looked at sources of exposure and radionuclides in the air, and also looked at how sensitive the equipment was that was used to do whole body counting. We looked at the bioassay program that was started in 1952, the air monitoring that began in 1955, and the urinalysis records. Additionally, we know that whole body counters were used starting in 1965. He referred back to an earlier comment about when the whole body counting stopped, and there was some agreement that it ceased sometime in the 1980s. We also checked whether there were adjustments made to doses on record and why it might have been done.

Mr. Murray concluded by saying that this type of information is vital to the accuracy of the Site Profile and that we are actively looking for information from all interested stakeholders. He specified that the name and number of the documents should be included in official comments to NIOSH and explained how to submit written records. He thanked everyone for their participation and opened the meeting for discussion at approximately 10:45 a.m.

Discussion Session

Concern/Question:

Regarding the characterization that the Building Trades were not affected, up until 1967, all workers were represented in the same union. Many of our members have had a lot of exposure.



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Brant Ulsh:

There is no implication that the exposure potential is lower for Building Trades workers than for anyone else, but that the working conditions are different than production workers. The Site Profile may not reflect your specific situation. NIOSH and ORAU want to be sure to treat your situation accurately.

Concern:

Whole body counting for internal dose was done at Rocky Flats until around 1986 or 1987. After that there were still exposures that will be difficult to count in dose reconstruction because whole body counts weren't taken and in a lot of cases workers didn't wear dosimeters.

William Murray:

NIOSH and ORAU have heard about this kind of problem from other groups. The Site Profile addresses that in the internal dose section.

Question:

Is the 250 day employment requirement for a claim a cumulative total or do the days worked have to be consecutive?

Brant Ulsh:

They don't have to be consecutive.

Question:

Will workers have access to information if it's personal information? Do we have to file a claim before this information will be gathered?

William Murray:

The information for the Site Profile is about what went on at the site – the programs, who got monitored, etc. We won't have personal information in these Site Profiles.

Vernon McDougal:

In terms of the individual dosimetry records, what happens is that a claim is filed through DOL, who verifies the claimant's employment. The next part of the process is that the request goes to DOE to get their records. Those files are become part of the case file. If you are trying to get the records yourself without filing a claim, I believe you can file a Freedom of Information request to get your own information.

Mark Lewis:

It will take a long time but you should be able to get that information.

Question:

Can you elaborate on that? I've heard complaints about not getting information back for periods longer than six months from the time of request.

Mark Lewis:

Years ago you could get information back in about three months, but as time went on and more requests were received it took longer and longer – ten months, eleven months at times.



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Question:

If we want to get hold of that information, who do we talk to? DOE? DOL?

Mark Lewis:

There is a form that I can discuss with you after the meeting.

Question:

Are the x-ray records kept on DOE files? I had an x-ray done that showed a problem so they advised me to see my doctor who thought it was lung cancer. When I went back to the plant medical center, they gave me a CAT scan and said it wasn't the same – it seems to me it was a bad x-ray. It was not a modern x-ray machine that was used.

William Murray:

The employee's x rays are generally kept in the employee's medical file. This would be similar to a situation where the team went back and found x-rays that were taken with a photofluorographic machine in the 40s – they still had the x-rays on site in the employee's medical record.

Robert Meyer:

The team found some records here but not the photofluorographic records, although we looked awfully hard for those them, so if anyone knows where they can be found we would appreciate your help. It was necessary to make assumptions to fill in gaps where that information was missing.

William Murray:

The change in the entrance dose to the skin has been fairly low since the 1960s onward. The photofluorographic machine was used in Denver in their TB screening program. These machines emitted very high radiation levels, compared to present x-ray equipment. The dose is around 300 times more than the normal chest x ray.

Comment:

Workers were never provided with the x-rays, only summaries if something was found.

William Murray:

NIOSH finds out what kind of equipment and techniques were used and what were the radiation doses to specific organs. The doses to the organs vary widely so NIOSH and ORAU make those calculations and give specific instructions to the dose reconstructor on how to use it.

Attachments:

- Sign-in sheet
- Presentation on Rocky Flats Plant Site Profile