

National Institute for Occupational Safety and Health (NIOSH) Worker Outreach Meeting for the Paducah Gaseous Diffusion Plant

Meeting Date: Tuesday, December 8, 2009, 10:00 a.m.

Meeting with: Western Kentucky Building and Construction Trades Council, Paducah, Kentucky

NIOSH Worker Outreach Team:

Peter Darnell, National Institute for Occupational Safety and Health (NIOSH) Office of Compensation Analysis and Support (OCAS), Certified Health Physicist (CHP)

Susan Winslow, Oak Ridge Associated Universities (ORAU) Team, Health Physicist

Wilfrid “Buck” Cameron, Advanced Technologies and Laboratories International, Inc. (ATL), Senior Outreach Specialist

Mary Elliott, ATL, Technical Writer/Editor

Mark Lewis, ATL, Senior Outreach Specialist

Proceedings:

The President of the Western Kentucky Building and Construction Trades Council called the meeting to order at approximately 10:00 a.m. He explained that Buck Cameron, a contractor for the National Institute for Occupational Safety and Health (NIOSH), had contacted him about changes to the site profile that is used in the dose reconstructions for workers from the Paducah Gaseous Diffusion Plant who file claims under the Energy Employees Occupational Illness Compensation Program Act (EEOICPA, or “the Act”). He stated that he called this special meeting so that NIOSH representatives could make a presentation on the Paducah site profile revisions since February 2005, when the NIOSH Team met with the Council to discuss the original document.

Mr. Cameron thanked the Council members for rearranging their schedules to accommodate the meeting. He described his long-time affiliation with the AFL-CIO, having recently retired after a career that began as a Business Representative with the International Brotherhood of Teamsters. Mr. Cameron now works with Advanced Technologies and Laboratories International, Inc. (ATL), the support contractor for the NIOSH Worker Outreach Program, providing information on the EEOICPA to the Building and Construction Trades Department, AFL-CIO, its Councils, and other labor organizations that represent workers in the U. S. Department of Energy (DOE) nuclear weapons complex. Mr. Cameron introduced the other NIOSH Team members: Peter Darnell, NIOSH Office of Compensation Analysis and Support (OCAS); Susan Winslow, Oak Ridge Associated Universities (ORAU) Team; and Mark Lewis and Mary Elliott, both with ATL.

Mr. Cameron requested permission for Ms. Elliott to record the meeting for use in preparing minutes of the meeting. He explained that Ms. Elliott will then send the draft minutes to the Council for approval, after which the recording will be destroyed. The Council approved his request.

Mr. Cameron asked the Council members to introduce themselves while circulating a sign-in

sheet. Ms. Elliott explained that providing contact information is voluntary. The information is protected under the Privacy Act and will not be used in the minutes.

Mr. Cameron acknowledged that the majority of the Council already knows about the EEOICPA and the class of Paducah workers in the Special Exposure Cohort (SEC) that is part of the Act. For those who were unfamiliar with the Act, he gave a brief explanation: the EEOICPA provides compensation for workers who have become ill due to workplace radiation or toxic chemical exposures at atomic weapons sites. Under Part B of the Act, NIOSH and its contractors provide dose reconstruction for eligible workers who have a cancer diagnosis to determine the likelihood that their cancers may have been caused by radiation exposure. The SEC provides a way for workers to be compensated without the dose reconstruction process.

Mr. Cameron explained that to be an eligible member of the Paducah SEC class, a worker must have been employed at the Paducah plant for at least 250 days prior to the end of 1992 and have been diagnosed with one or more of the 22 cancers specified in the Act. If a worker does not meet the employment requirement, or has a cancer that is not specified in the Act, NIOSH uses the site profile to reconstruct the worker's radiation dose. The site profile contains information about the radiological processes and activities at the Paducah plant that can be used to estimate the radiation doses of workers who are not eligible for the SEC class.

Mr. Cameron explained that the purpose of the meeting was two-fold: to inform the Council of changes made to the site profile since February 2005, and to obtain input from workers with first-hand knowledge of the site.

Mr. Cameron turned the meeting over to Mr. Darnell, who explained that NIOSH is affiliated with neither DOE nor the U.S. Department of Labor (DOL). However, both agencies provide information to NIOSH for the site profiles and the individual dose reconstructions. Mr. Darnell further explained that NIOSH is a research agency for worker safety and health that was created in the 1970s by the Occupational Safety and Health Act.

Ms. Winslow stated that NIOSH and its contractors had held meetings with the Building and Construction Trades Council and with Paper Allied-Industrial Chemical and Energy Workers (PACE) Local 5-550 in February 2005 to discuss the newly completed Paducah Site Profile. During those meetings, Paducah workers gave the NIOSH/ORAU Team additional information about the site facilities and operations. NIOSH incorporated the information into a new revision of the Paducah Site Profile.

Ms. Winslow explained that dose reconstructors use the site profile as a reference tool during the dose reconstruction process. It contains site-specific technical information describing workplace facilities, activities, processes, technology, and events that helps the dose reconstructors estimate how much radiation the workers may have been exposed to during their work activities in various areas of the site. It is important to include worker input to ensure that the site profile is as accurate and complete as possible so the dose reconstructors can calculate the workers' radiation doses as accurately as possible. Site profiles are revised as new information becomes available. The NIOSH/ORAU Team also made efforts during the site profile development process to ensure that the information in the document is consistent.

The Team has revised the internal dose guidance as well as the facility and process histories, using reports from the Bechtel Jacobs Company ("Recycled Uranium Mass Balance Project Paducah Gaseous Diffusion Plant Site Report") and the PACE International Union ("Exposure

Assessment Project at the Paducah Gaseous Diffusion Plant”).

Ms. Winslow stated that the Paducah Site Profile has six sections: the Introduction, the Site Description, the Occupational Medical Dose section, the Occupational Environmental Dose section, the Internal Dosimetry section, and the External Dosimetry section.

The Introduction has been revised twice to include additional information defining facilities covered under EEOICPA and to add an “Attributions and Annotations” section to link information to the Site Profile’s reference list. Similar changes have been made to each of the site profile sections.

Two revisions of the Site Description section include the addition of dates for recycled uranium processing; the addition of Table 2-1, “Buildings and Potential Exposures to Recycled Uranium”; the addition of facilities not previously listed; and the addition of Table 2-4, “Processes and Facilities Involving Potential Worker Exposure.”

The Occupational Medical Dose section has been revised twice. Revisions include: recalculating the X-ray doses to the skin for March 1975 to the present; removing the combined dose for posterior-anterior (PA) and lateral (LAT) skin X-rays since different areas of the skin are exposed for each of these procedures (individual doses remain in the site profile); and removing the dose for lumbar spine exams.

The Occupational Environmental section has also been updated twice to include additional periods of operation with feed material and recycled uranium to be consistent with the Internal Dose section. Based on worker comments, the authors added a discussion regarding potential worker exposures to neptunium (Np237) with a fraction to uranium as high as 90%. During the revision process, the NIOSH Team found documentation in reports from 1962 that workers with the highest potential for Np237 exposure were sent to Y-12 for whole body counts, and no detectable Np237 was found.

Three revisions of the Internal Dosimetry section include the addition of Table 5-1 to highlight the radiological source term for various processes and facilities. Table 5-2 provides isotopic fractions by process or facility. Table 5-4 was modified to include additional radionuclides and measurements, and to lower the minimum detectable concentrations (MDCs) for several measurement types for *in vitro* assays (urine analysis).

The External Dosimetry section has been revised three times. NIOSH added additional information in Section 6.3.2.2 about average neutron energy ranges based on depleted and natural uranium cylinders. Section 6.3.4.3 was revised to include additional discussion of neutron studies at other sites (Portsmouth, X-10, and Y-12) to develop neutron dose fractions (Table 6-5). The average recorded cumulative deep dose and shallow dose tables were removed and included in a separate technical document on co-worker dose at the Paducah site. The uncertainty section was simplified and condensed.

Ms. Winslow emphasized the importance of getting input from workers to make the site profile a better tool for accurate dose reconstructions. She asked the attendees to examine the site profile to see if they have additional information that NIOSH can evaluate for use in the revision process. She concluded by stating that information can be sent directly to NIOSH.

Mr. Cameron stated that he had brought a copy of the site profile to leave with the Council. He reiterated the importance of worker input to the revision process. He encouraged the attendees to

review the site profile to see if they might have information or questions about issues that are specific to building trades workers. He offered his assistance to help them contact NIOSH personnel to discuss any concerns they may have.

Mr. Cameron stated that the NIOSH Team developed ORAUT-OTIB-0052 ([*Technical Information Bulletin: Parameters to Consider When Processing Claims for Construction Trade Workers*](#)) to address the national Building Trades Department concern that by the nature of their work, construction workers are often exposed to higher radiation doses than production workers without benefit of monitoring. The document gives dose reconstructors guidance to multiply the results of building trades workers' dose reconstructions by a factor of 1.4 when there is no construction worker co-worker data available.

Mr. Cameron explained that any worker who was employed at the Paducah site and developed cancer can file an EEOICPA claim. The worker (or his or her survivors) may be compensated for \$150,000 automatically if the worker meets the employment time and medical diagnosis requirements of the SEC class. The Act also awards medical benefits for energy employee claimants from the filing date forward. Mr. Cameron stated that it is important for anyone who has worked at the site and has become ill to file a claim. However, if the claimant does not meet the eligibility requirements for the SEC class, the claim must undergo dose reconstruction.

Mr. Darnell stated that when the NIOSH Team met with the Steelworkers the previous evening, there had been some discussion about the operations in Buildings C400 and C410. He said that NIOSH is looking for new information from workers who know the facilities and processes. He asked if the attendees had any questions, but got no response.

Mr. Cameron stated that trades workers may receive radiation exposures when they perform such tasks as opening pipes or tearing up floors in contaminated areas. He asked the attendees if any of them could comment. One attendee stated that, although he had not been at the site himself, it was possible for such an exposure to happen.

Ms. Winslow stated that the Building Trades Council could help by telling their members about the Act and helping them get to the right places to file claims. She explained that every claimant is interviewed prior to the dose reconstruction to give NIOSH information on where they worked, what kind of jobs they performed, what exposures they may have had, and any incidents or accidents that may have happened in their areas. She emphasized that it was important for the worker to provide as much information as possible to help the dose reconstructors make an accurate calculation of their radiation dose. She encouraged the attendees to spread that message to their members who were filing claims.

[Name redacted] commented that it is often difficult to verify that construction workers were working around the contaminated areas in the earlier periods of operation when highly contaminated equipment and materials were brought in from other sites in the 1950s. He stated that some men became ill for unknown reasons and passed away in the 1960s and 1970s. Their surviving family members have an especially hard time documenting their eligibility because the records cannot be located. Mr. Cameron confirmed that it is very important to understand that certain surviving family members may be eligible to file claims. Mr. Darnell added that the DOL will accept Social Security records or co-worker affidavits as proof of employment if no other records can be located.

The attendees described varying degrees of success with survivor claimants. Mr. Cameron

explained that the Building Trades Department's Center for Construction Worker Research and Training (CPWR) has an office that helps EEOICPA claimants from the building trades in dealing with the DOL. He said that Joe Hudson of the Paducah Building Trades Medical Surveillance Program is a good local resource for help with the claims process.

Mr. Darnell added that Denise Brock, the NIOSH Ombudsman for EEOICPA Part B issues, may also help claimants resolve issues. Ms. Brock was instrumental in helping claimants from the Mallinckrodt Chemical Works in St. Louis, Missouri, to become the first SEC class added by petition. NIOSH asked her to become their Ombudsman to assist claimants with problems. Ms. Brock's contact information is on the NIOSH Web site.

[Name redacted] commented that there had been many local meetings with the DOL regarding the program and that there had been Ombudsmen there from various governmental agencies.

Mr. Cameron stated that the EEOICPA claims process is set up with numerous resources available for its claimants. He provided his contact information to the Council members and offered his assistance in helping them connect with helpful advocates.

Mr. Darnell asked the attendees if they had any further questions or comments. He suggested that they get the word out to their affiliate members and help them go through the site profiles. Mr. Darnell stated that NIOSH needs workers to provide information about activities that are not documented in the official records, or where the records are missing or have been destroyed. Mr. Cameron added that information after 1992 is even more important since claims filed by workers hired after that time must have dose reconstructions.

An unidentified attendee asked if NIOSH would hold meetings with their individual affiliates. Mr. Darnell replied that NIOSH would need to have lead time to prepare for any subsequent meetings with the individual unions. NIOSH can also arrange public meetings.

Mr. Cameron thanked the Council members for their time and adjourned the meeting at approximately 10:40 a.m.