Date:

April 16, 2004

Meeting with:

Paper, Allied-Industrial, Chemical and Energy Workers Local Union 5-689
Security, Police and Fire Professionals of America Local 66

Attendees:

Gregg Maynard	Paper, Allied-Industrial, Chemical and Energy (PACE) Workers Local #5-689
Billy Spencer	Security, Police, Fire Professionals of America (SPFPA) Local #66
Garry Hager	SPFPA Local #66
David Adkins	SPFPA Local #66
Garry M. Sexton	PACE Local
Jeanne Cisco	PACE Local
Herman Potter	Paper, Allied-Industrial, Chemical and Energy Workers International Union
Paul Mullens	PACE Local
Robert Whitt	Worker Health Protection Program (WHPP)
Sam Ray	WHPP
Debra Benedict	Department of Labor, Cleveland Regional Office
Kevin Clausing	Energy Employees Resource Center-Portsmouth, OH

NIOSH and ORAU Team Representatives:

Dr. James Neton – NIOSH/OCAS

William Murray – ORAU

Melissa Fish – ORAU

Mark Notich – PORTS Site Profile Team Leader

Mark Lewis – ATL

Dawn Catalano – ATL

Proceedings

Mr. Mark Lewis opened the meeting at 8:15 a.m. by thanking everyone for being there and making general introductions. Groups/individuals acknowledged were Dr. James Neton from NIOSH, the Portsmouth Department of Labor (DOL)/Department of Energy (DOE) Resource Center, the Guards Union, the PACE Health Protection Team, and Ms. Debra Benedict from the Cleveland DOL office. He then stated and briefly explained the topic of the meeting – site

profiles in general and the status of the Portsmouth Technical Basis Document (TBD) – which he said would be explained in greater detail by Mr. William Murray of ORAU in his presentation.

Mr. Murray opened with individual introductions of the ORAU Team and their respective roles in the development of the TBD. Handouts (2) were distributed (attached) for union members to follow the presentation and take notes. While handouts were being disseminated, attendees introduced themselves and identified their affiliations. Groups represented included:

- PACE Local 5-689;
- Security, Police and Fire Professionals of America (SPFPA) Local 66;
- PACE National Union Worker Health Protection Program; and
- DOE/DOL Resource Center

Mr. Murray stated that the overall theme of the presentation was to obtain feedback and additional information from the workers themselves to supplement data gathered from site records. He emphasized the goal of accuracy and adequacy of information collected while protecting the privacy of claimants. Additional goals included avoiding conflict of interest and improving efficiency and perceived fairness of each dose reconstruction. He went on to explain dose reconstruction in greater detail, including the process NIOSH follows (stressing that assumptions that are used are always favorable to the claimant) and the types of doses included. He described the role of site profiles and the purpose of each section on a site profile.

More specific discussion of dose reconstruction followed with continued emphasis on worker input and participation on the site. Bill restated that assumptions are always claimant favorable, especially considering doses that do not appear in official records.

Discussion Session

Question: Are missed doses and uncalculated doses measured separately?

Answer: Absolutely. For example, some people reached a point where they were no longer badged, so it's a justifiable missed dose that was considered to be unmonitored. When there is ambiguity such as whether a dose was missed or unmonitored exists in the records, more vigorous reconstruction is required. We make that determination on a case by case basis.

Question: What about cases where doses show up as zero after years of exposure?

William Murray: Interviews are conducted with workers to add information to supplement DOE records in cases when it seems the records are inaccurate.

Question: When transporting cylinders we can't see the product, so it was not recorded, but guards were required to sit next to it all day – how is this dose calculated?

James Neton: In the event we are not sure if a dose was received due to incomplete records, we give an upper dose in all calculations during reconstruction.

Concern: People don't know what to mention in the interviews – they don't always know what could have hurt them over the course of the years.

Question: Are doses considered missed or unmonitored for guards?

James Neton: NIOSH would look at the individual situation – each possible scenario has to be evaluated.

Comment: Guards constantly work in hot areas but their dosimeters never show a dose.

James Neton: The discussion has generated good information – we need to look into all aspects of the situation.

William Murray: The building trades are also largely unmonitored and in a similar situation.

Question: Can the model evaluate a full versus a partially full cylinder?

James Neton: Evaluations start with the survey meter, but we have done some modeling.

Comment: Full cylinders do not always set off alarms, but badges NEVER registered a dose from a full cylinder.

Question: What are the relative sizes of doses measured from production operations rather than maintenance operations, such as reclaiming deposits in the cascade?

James Neton: We will look very closely at this issue; we are doing calculations for (skin) doses from beta activity as addressed in the site profile.

Question: What kind of documentation exists for maintenance operations investigation?

James Neton: We have seen some data, but we welcome your input on the issue.

Mark Notich: We make inquiries but information is slow getting back to us.

Question: These documents are often classified – can we be sure they're not scrubbing them first? Other documentation exists but the need to know clause prevents us from access; can we get to these elusive files?

Mark Notich: Yes, we can. We gave them a list of the records that we're looking for, but they only go back to 1985; they are still searching earlier records.

Question: Can we get a copy of the list of documents you asked for as well as what you received for comparison and possibly assisting to fill in the gaps?

Mark Notich: Yes, we will supply those records if ATL still has them.

(After the meeting, Mark explained that they had a key word search done of the Portsmouth records system. They received a 500-page printout that the team selected references from for the Site Profile. He does not have a copy of that printout but he will attempt to get a copy.)

Comment: Information regarding years prior to 1985 is the most critical.

Comment: Experimentation to improve efficiency would put the records into vault classification. This occurred with Building 770 – a release was captured inside the building, and although the guard force used the location for training purposes, they were not informed for years that it was hot. Contaminants were commonly exhausted inside buildings. The practice was only changed after management was questioned and threatened with legal action.

Concerns:

- Guard training areas were attached to the cascade in the 770 Building and guards were in the area often. After the release, information was re-coded, which makes data searches exasperating and non-productive. Information that was changed during recoding includes gas releases being renamed 'seal failure,' thereby rendering it an operational issue that would not be recorded in the dose records.
- Argon gamma alarm activations were blamed on instrument failure even though the instruments were functioning normally.
- Malfunction readings were a result of shutdown without clean up, not mechanical failure. Assumptions were made that these irregularities were malfunctions, but they were more likely spikes due to deposits that could have led to criticality.

James Neton: We have previously initiated studies of 'slow cookers' and are aware of the situation. The goal is to have the profile include 'slow cookers.'

Question: No neutrons are being measured on badges. Similar occurrences at Paducah and K-25 took a year to be investigated. In other cases, we have counts but do not know the distance measurements. How will we factor these discrepancies into the analysis?

James Neton: In issues concerning the determination of neutron dose, we assume the neutron dose was unmonitored and base the neutron dose on the neutron-gamma ratio. Since we have no way to know for sure, we err in favor of the claimant.

Bill Murray: We try to be as inclusive as possible in all cases.

Comment: There have been times when clusters have gone off but they are classified as a malfunction. Archives in procedures may have more information that could clarify cases such as these.

Issue: We were not alerted to the danger that existed with empty cylinders. We have since found out that argon gamma graphs were more frequently set off by empty cylinders than by full ones. Before we knew about this, the guards went as far as keeping warm over the empty cylinders because they had not been warned of the dangers.

Question: Can NIOSH provide training for Integrated Modules for Bioassay Analysis (IMBA) software? It is difficult to understand the explanation regarding a claim.

James Neton: Models are available but the program is both complicated and proprietary. ORAU takes written requests for additional information on the website and tries to get an analysis back in a short timeframe themselves. IMBA output results can be found on every dose reconstruction report.

Question: If training is not practical, can NIOSH provide a demonstration to help understand how IMBA works – for instance what are inputs based on for different variables?

James Neton: NIOSH could probably arrange a demonstration. Probability of causation is based on sampling; we increase the number of runs based on the likelihood that the cancer is related to radiation. A general discussion is in order, but the model is so complex with so many variables. It is not productive to give examples that won't prove out.

Question: How is NIOSH/ORAU handling the assigned doses versus missing badges issue?

James Neton: NIOSH doesn't keep statistics; we only fill in gaps if doses are missing.

Question: There has been a problem in tracking badges: Procedures were established in 1994/95, but there was much inconsistency before that. Practices such as averaging doses actually resulted in a negative reading. Can the NIOSH provide a percentage of the badges that were assigned a dose?

James Neton: That is an issue we need to look into. Analysis of the glow curve and data are key to assigning a missed dose.

Question: Can NIOSH provide a percentage of the information we receive including the environmental badges?

James Neton: NIOSH is not sure that would be permissible, but will try to figure something out. Reports are being revised, and we hope to arrive at a format with a one page summary and a more detailed health assessment attached.

Question: Do we expect to miss doses despite best efforts?

James Neton: We will try to always use the highest number possible to benefit the claimant. Reconstructions are never officially "done;" we can always re-open a claim if additional information becomes available.

Question: Forms require claimants to sign off indicating that all the information given is complete. The verbiage is too technical and confusing for the average worker who has to fill out the form; how can they know if the information is not complete?

James Neton: Providing additional site or other relevant information will re-open a case even after signing off.

Question: We have no way to capture chronic exposure, for example to airborne particles. How can it be measured? We have found monitoring to be sporadic.

James Neton: NIOSH/ORAU assumes that any sample represents the highest level in our reconstruction efforts; the same principle will apply to chronic intake evaluation. NIOSH/ORAU always assumes three times the dosage and can go as high as six times when specific amounts come into question. Again, we always try to incorporate the highest dosage possible into the reconstruction evaluations.

Comment: We need to evaluate *where* people have been working to account for all situations. Guards were often officially assigned to the guard station but in reality were physically located alongside cylinders throughout the plant. Guards were often excluded from routine monitoring despite their constant presence in the buildings. Other problems with the system include tremendous errors in the urinalysis program and a general lack of knowledge by supervisors who ran tests but had no background in radioactivity.

Question: What are the references and/or citations in the TDB? What pre-1993 data was provided for the development of the TDB?

Mark Notich: We worked with health physicists to seek all of the information that was available from earlier programs. Old data mining has been an obstacle and information has been difficult to obtain. In these cases, the evaluations are heavily claimant favorable since hard evidence may not be available.

Comment: A person knowledgeable about the cascade who has an appropriate security clearance would be best able to obtain information from the vault. This should include operational information that is still classified but would reveal additional evidence and information. In addition, the person would have to know what they're looking for – changes to file names and locations add even more difficulty to getting the right records.

Ms. Benedict asked if there were any questions for DOL. Several attendees asked her about specific cases and she suggested they discuss them after the meeting adjourned. In closing, the union representatives asked Dr. Neton to accept a document expressing their interpretation of the issue as well as their concerns (attached).

The meeting was adjourned at 11:25 a.m.

Attachments:

- Sign-in Sheet
- Presentation by William Murray: *Development of the Idaho National Engineering and Environmental Site Profile*
- Technical Basis Document for Idaho National Engineering and Environmental Laboratory – Introduction