Date:

April 28, 2004

Meeting with:

Paper, Allied-Industrial, Chemical and Energy Workers Local Union 8-0652
Amalgamated Transit Union 1517
Security Police and Fire Professionals of America, Local 3
International Brotherhood of Teamsters Local 983

Attendees:

Sylvia Kieding	Paper, Allied-Industrial, Chemical and Energy Workers International Union
Shirley Codding	Paper, Allied-Industrial, Chemical and Energy Workers, Local 8-0652
Rocky Casper	Security, Police, Fire Professionals of America, Local 3
Layne Grough	International Brotherhood of Teamsters
Ruth Nielson	Retired
Charlotte Colvin	Retired
Brian Morris	Paper, Allied-Industrial, Chemical and Energy Workers, Local 8-0652
Mark Hansen	Idaho Falls Resource Center
LaVar Zohner	Retired
Randy Olaveson	Amalgamated Transit Union 1517
Blaine Beaderstadt	Security, Police, Fire Professionals of America
Mike Oar	International Brotherhood of Teamsters
Erv Southwick	Retired
Emery M. Belnap	Retired
Ann Jones	Department of Labor
Sherry Fladeland	Idaho Falls Resource Center
Chris Juden	
Egon Lamprecht	Retired

NIOSH and ORAU Team Representatives:

Stuart Hinnefeld – NIOSH OCAS

William Murray – ORAU

Norman Rohrig – Site Profile Team Leader

Mark Lewis – ATL International

Dawn Catalano – ATL International

Proceedings

Mark Lewis opened the meeting at 2:05 p.m. by thanking all attendees for coming. He introduced himself and added that he was pleased to see several familiar faces. He stressed that the purpose of the meeting was to help the National Institute for Occupational Safety and Health (NIOSH) and the Oak Ridge Associated Universities (ORAU) Team gather information to supplement the Site Profile with data from those in the workplace, thus making it more accurate and useful in dose reconstruction efforts. He then introduced Stuart Hinnefeld as the NIOSH representative and turned the floor over to him.

Mr. Hinnefeld also thanked the attendees and gave an overview, stating that NIOSH performs radiation dose reconstruction for the Energy Employees Occupational Illness Compensation Program Act (EEOICPA). He pointed out that the local resource center is available to help file claims. These are then processed initially at the Seattle Department of Labor (DOL) office. He further explained the need for NIOSH to gather information from various sources that could affect the Site Profile and offer insight in doing the dose reconstructions. Mr. Hinnefeld concluded by commenting that although the target audience of the Site Profile is health physicists, NIOSH needs thorough information for 'the big picture' that would make the document more accurate. He then introduced Bill Murray of ORAU and Norman Rohrig as the Site Profile Team Leader.

Mr. Murray welcomed everyone and thanked them for taking the time to participate in this meeting. He asked the DOL and Resource Center representatives to introduce themselves so the union members would know who to go to for further assistance and information. After they did so, he asked that everyone briefly introduce themselves, which they did. Several retirees were in attendance, invited by their local representatives. During the introductions, the issue of recording the meetings was raised to ensure accuracy and completeness of the records. Mr. Murray replied that he would bring it up with NIOSH and see if anything can be done along those lines.

Mr. Murray then addressed the Site Profile, pointing out that some questions would be better answered by the Resource Center representative and that Stuart Hinnefeld would have much to add. Most notably, he stressed again that the meeting was intended to be an open forum and NIOSH and ORAU are there to receive input from the people working at the sites. He started his presentation with an overview of the program objectives, and mentioned the EEOICPA, and specified that NIOSH is involved only with Subpart B of the Act concerning radiation. He explained that when DOL receives a claim it is forwarded first to NIOSH, then to ORAU. Acknowledging the sensitivity of information involved with processing claims, Mr. Murray discussed ORAU's commitment to protecting the claimant's privacy and the Privacy Act training required for all Project employees. He also described precautions taken to avoid conflict of interest in the development of the Site Profile. He again stressed the need for ORAU to get 'the real story' from those who were there, pointing out that retirees were of special benefit to the ORAU Site Profile Team's effort in getting information from the early days.

Mr. Murray next presented a description of the dose reconstruction process, stressing that the overall goal is to be accurate, fair, and efficient in the process. Addressing the amount of personal information included in each claim, Mr. Murray explained that the files are kept on a secure network drive, accessible only by employees who had completed specialized training on

the Freedom of Information Act and Privacy Act. He also said he understood the frustration associated with long wait times as claims are processed, and stated that it took fourteen months to process the first 1,000 claims, and only fourteen weeks for the next 1,000. Another concern he addressed in the presentation was avoiding conflict of interest, and he explained ORAU is developing a policy to place limits on Site Profile authors who worked at the Site.

Discussion Session

Comment:

Wouldn't there be an advantage to a health physicist who worked at the site authoring documentation considering first hand knowledge of what happened there?

William Murray:

It depends on your point of view. There is validity in asking who would know the site better. But there is a need to avoid not only actual conflict of interest but also perceived conflict of interest. The same goes for the Site Profiles; ORAU needs to be accurate and objective and wants to be and appear fair and equitable.

Concern/Question:

Are dose reconstructions done by averaging unknown doses?

Stuart Hinnefeld:

Individual bioassay samples and results are used that are based on measurements from current scientific models.

William Murray:

This will be explained further in the presentation.

Concern/Question:

Where do NIOSH and ORAU get records for site profiles? Many records were shipped out and are difficult to recover, averaging only 1 in 10 when attempting to acquire documentation.

Norman Rohrig:

Dosimetry records located on-site are easier to recover. Changes in file locations are typically well documented, and all references are listed in the site profile if you need to access the files.

Comment:

The information in the document is too general and doesn't seem to address the issues specific to INEEL. We looked for dose validation but only found a lot of superficial, broad, generic statements. It appeared as if everything was cut and pasted from another document, not a real assessment of our situation.

'The 1991 DOE Historical Dose Evaluation (HDE) report (DOE, 1991A) appears to have provided an adequate basis for the RAC task group's starting point. However, the committee recommends that RAC include an explicit justification in the final draft report for its assessment of the lack of potential significance of the lost or destroyed boxes of source material in its conclusions. The other sources of information used appear to be appropriate, although the committee was not in a position to re-examine the many cited*

source documents. The draft report is not clear in reporting the source documents used for routine releases to air. The committee recommends that RAC identify the source of these latter documents.
(Attached - excerpts can be found at: http://books.nap.edu/books/NI000355/html/index.html)
**RAC – Radiological Assessments Corporation*

Those records would have been invaluable.

William Murray:

We agree but we can't gain access to records that have been destroyed.

Comment:

These reports are not the most efficient that can be used– the Chemical Processing Plant is missing. There are plutonium reports that are much more specific and useful. In the criticality reports, heavy contamination was never reported. The document is too vague as it stands and could just as easily be used against a claimant as in his/her favor.

Concern:

Are military projects included in does reconstruction? There is no mention of ARVFS (Army Reentry Vehicle Facility Site), a small mobile reactor project north of the Central Facilities Area (CFA) that the commenter was assigned to. An independent Medical Review Investigation (attached) states:

"The SMCIH had neither the training nor experience to carry full responsibility for the program. A corporate CIH[1] present for my visit was unable to answer basic questions about the major facility hazards of concern to him. A 'cook-book' mentality of IH management was observed where compliance with TLVs[2] was the only benchmark being used to gauge a potential health hazard… Spot checks for basic elements of hygiene program were found to be wanting. For example, I asked or the maintenance protocol for the oxidation oven but received the document in Appendix VI – an obviously 'newly' minted response. No truly 'competent person' was identified by me who would have the working knowledge and experience to know (without looking at an MSDS[3]) what hazards to expect in a new operation or with the introduction of a new tool. This however, is the responsibility of an IH in the pre-planning stages of any such change or tool introduction. An example here is the potential for an inhalation and skin exposure from an inadequately engineered punch process on the fabrication line. Mr. Jensen volunteered to me that he always had itching when he worked around that line."
[1]CIH – Certified Industrial Hygienist
[2]TLV – Threshold Limit Value
[3]MSDS – Material Safety Data Sheet

Dr. Creighton never showed up on site until he was threatened with a lawsuit even after being in charge of the program for years. We want to bring all the truth out for a full picture; mandated testing did not produce real results. When an outside doctor was consulted and raised questions because of the diagnosis, the company tried to fire me, took 600 hours of pay, covered up accidents, and exhibited a complete lack of responsibility for my condition.

William Murray:

That is the reason NIOSH and ORAU are here. Stuart Hinnefeld can take the documentation into the record. This is the kind of information needed to get the real story.

Stuart Hinnefeld:
We will follow up after the meeting and get all your personal information.

Comment:
A reading of 50 was used all the way through the Chemical Processing Plant.

Concern:
People wore their badges on their front but the radiation was to their backs in a 150 mR (milliroentgen) field and it did not register. They even ate lunch right in front of it; are those exposure rates factored in?

Concern:
And what about air quality? HEPA [*added: high efficiency particulate air*] filters? Does the report have anything to say about safe atmosphere?

Concern:
Tests are not set up for chronic low level doses – dosimeters are not built in.

Stuart Hinnefeld:
It is difficult to realize what the information in the Site Profile means for the dose reconstruction report; it is hard to understand the utility of the document until you see a dose reconstruction. However, there may be important information left out; that's the reason for these meetings.

Comment:
There is no mention of many hot situations or other gamma source equipment that can be found in addition to the work equipment.

Suggestion:
Perhaps searches for information should go area by area, year by year asking questions such as: What were the ranges of exposure? What percentage of the workforce was monitored? Where were the specific sites and jobs located?

Comment:
There is a good description of the procedures, but little about actual exposure.

Comment:
According to the RAC document, DOE circa 1991 dose report was taken for granted.

Concern:
Did NIOSH ever go back to source documents during research for the document?

Concern:
There is clearly a conflict of interest with Norman Rohrig acting as the primary author and team leader on this assignment. He may be a subject expert on external dose, but he worked at the plant, which seems contrary to the rules cited earlier in the presentation.

Norman Rohrig:

Since I never worked in management there is no conflict according to the proposed NIOSH and ORAU rules. I offered advice and consultation as a salaried employee but was not a supervisor.

Comment:

There is another very evident problem: NIOSH never interviewed retirees such as those in attendance today. They can make significant contributions.

Comment:

Yet another issue is the frequent loan-out [*added: of workers to other sites*] practices; film badges were left at home facilities and temporaries were issued. The question is what happened to the temporary badges? There is no accounting of them.

Stuart Hinnefeld:

That is something that NIOSH and ORAU look at in individual reconstructions. One instance tips us off that investigations are needed, especially when length of employment doesn't match exposure records.

Concern:

The potential for exposure is not revealed when workers are moved from one area to another. There is no way of knowing what the exposure levels are at a new work location.

Stuart Hinnefeld:

Individual records are incorporated in dose reconstructions; the site profile is not the only source for figuring doses.

Comment:

INEEL recorded doses in their own records, but since many projects are performance-based in their funding, INEEL kept doses down. The suspicion is that this was accomplished by badge swapping or conveniently losing records – there is little confidence in the honesty of the recordkeeping. They did not admit they were exposed to beta radiation until the late 1980s. Badges do not seem to be a good dose assessment tool.

Concern:

Workers were sent into high radiation areas where there were gamma-emitting radionuclides with lead shielding – we know now that this makes x-rays (Bremsstrahlung), but we were never told that at the time. By what factor will that increase the dose?

Comment:

Portable shielding was used to reduce the dose rate as a control procedure until 1990, but people would hide their badges or not even wear them so they wouldn't lose their jobs. Lead boxes were made clearly available for dropping badges off so they wouldn't get readings, and even for those who kept them on, the dose would depend on where it was worn.

Concern:

What does NIOSH/ORAU do about the un-badged workers such as those in the warehouse, drivers, and guards? This is still a common practice.

William Murray:

The same concerns were raised in Portsmouth. NIOSH and ORAU are aware of this kind of situation and we are addressing it case by case.

Comment:

Contamination between buildings is another big concern. Workers called it the CPP shuffle to avoid those areas. Releases from the stack when it blew went all over and the cornflakes [*added: particles from the release*] were not accounted for.

At this point, a representative from the resource center asked for everyone's attention for a moment. He acknowledged that everyone in the room has a thousand stories to tell, including himself, but in the interest of time, it would be best to turn back to the presentation and save additional comments for afterwards.

Stuart Hinnefeld:

Dose reconstructions will always have a higher dose than DOE records. There is still much NIOSH and ORAU do not know, such as the scenarios described today. Our goal is to capture as much information as possible for future improvement of the process. There are other mechanisms being explored for further information gathering, such as meetings on other topics. Being here for outreach today is only part of a process including dose reconstruction. These factors determine what the dose reconstruction reports will look like with all the records plus the Site Profile. It is vitally important to keep gathering information such as you are providing today for a true picture.

Question:

What kind of timeframe can be expected to get an answer back from a claim?

Stuart Hinnefeld:

That depends on the individual case; there is no standard time that can be quoted.

Comment:

The trend seems to be moving towards research on claims going on so long people give up.

Stuart Hinnefeld:

NIOSH has no intention of doing that, the profiles are true living documents that can change as we learn more.

Comment:

There are already many lost who got no relief. It's frustrating with so many sick and dying people waiting for answers.

Comment:

You have to be very specific with DOE or they will send you useless information that doesn't help with your claim.

Question:

Can NIOSH or ORAU provide the names of the health physicists working on this project?

William Murray:

Yes, all the health physicists are listed on the ORAU website with bio-sketches and full information on their credentials. The internet address will be given at the end of the presentation and it is included in the handout for your convenience.

Mr. Murray returned to the presentation. Site profiles provide information such as sources, exposures, and programs that could be helpful in preparing claims. There are six sections to the Site Profile for INEEL; the primary customer is the health physicist doing the dose reconstruction. He added that the Site Profiles are technical handbooks designed to reduce the need for interpretation of data in order to keep dose reconstructions fair and consistent. He explained that different types of radiation doses are considered, such as medical doses for pre-employment, annual, and termination chest X-rays required as a condition of employment. NIOSH takes into consideration the changes in X-ray equipment over time, acknowledging that doses were higher from older machines. Although these are not included in records, NIOSH and ORAU will add them to the dose.

Environmental doses were described next as internal releases. Mr. Murray explained that air monitoring data is used for reconstruction.

Comment:

We have been told that these releases do not contribute to doses, but we are not convinced this is true. The idea that the gasses were inhaled into the lungs would make it an internal dose.

William Murray:

The reason they are not counted is because they are exhaled and do not remain in the body long enough to decay.

Norman Rohrig:

NIOSH and ORAU look primarily at gamma doses; external doses reported at ten (10) locations are listed in the Environmental TBD.

Comment:

The discussion seems to have been quelled since the Resource Center Representative interrupted because he had to leave. This was overstepping his bounds; he had no right to do it, and we resent it. The intensity of the discussion is diminished even though people came here to share their experiences and concerns.

Concern:

Only 10% of doses are reported. How can NIOSH and ORAU make conclusions when the amounts reported are inaccurate?

William Murray:

The calculations are based on DOE records. It's the only way we can do it; there is no way to verify if the data are good or bad. All that is available for a baseline is what DOE published.

Concern:

Do NIOSH and ORAU simply accept the records or attempt to validate source information?

Norman Rohrig:

Various published reports that were written at the time of the incidents are used for the document. Since these can either conflict or agree, it is necessary to make a judgment call. More faith is placed in a document that was written at the time of an incident than one in which someone is trying to reconstruct events.

Concern:

How do NIOSH and ORAU know that flaws in the documents are not being passed on if they are not validated? Is it possible to do sample validation?

Norman Rohrig:

Yes, validation was conducted on select documents. For example, there were some film badge minimum reporting levels that seemed too low, so they were compared with the individual claim for neutron measurement results. The conclusion was reached that records were accurate from 1958. Validation only occurred if something did not look right, therefore you are encouraged to report situations that seem to need validation.

Comment:

There is much frustration among claimants with regard to inconclusive reports after much time and money were invested.

Concern:

How do NIOSH and ORAU resolve conflict in agency reports? How is information validated and who gets the benefit of a doubt when there is a conflict?

Stuart Hinnefeld:

NIOSH and ORAU attempt to determine which report is more logical and always uses the higher numbers when there is a question about dose.

Concern:

How is cross-referencing and research done when using samples? There was an incident regarding an old field storage building that got so bad they had to put lead on the grating, but it doesn't show up anywhere in the report. Similarly, gas was bottled in building 604 but not in 601; despite the inconsistencies the same number was used.

William Murray:

Sampling only applies to people who were not monitored. These cases are considered under environmental doses and, since they are not included in any DOE dose record, should be claimant-favorable. The health physicist has to use his professional judgment to account for environmental and unmonitored doses.

Concern:

Workers with low potential for dose are often loaned out to high dose areas, and the rating is picked up on temporary badges. How does that high dose ever get on record?

Norman Rohrig:

The S-number or name would cause the dose to be picked up in the individual's case/file.

Question:

What would be the course of action if the health physicist who was working with radioactive materials and measuring levels was later found out to be under the influence of illegal drugs?

Stuart Hinnefeld:

I can discuss that scenario with you personally, after the meeting.

Concern:

How do NIOSH and ORAU judge completeness of dosimetry information?

Stuart Hinnefeld:

Results for each badge exchange are expected, and the exposure records need to match records for length of employment. For example, if badges are exchanged weekly, fifty-two (52) weekly reports per year are expected for each year of employment and compared to the work history provided by DOL.

Concern:

Referring back to voids in records because of inconsistency in records between projects, how can projects that are not in the records be validated for a claim?

Norman Rohrig:

Records from SL1 show people from many areas that indicate where workers were assigned. Part of this meeting is to assure that the voids are accounted for; all records come into the same place and scanned. Each record includes all scanned documents.

Comment:

Section 3.3.4 on page 21 of the External section is incomplete. The entire section needs to be expanded since it is only six pages long and does not cover everything adequately. Perhaps it should include an organizational chart to show worker locations over time, or a table showing the percentage of people in each range.

Stuart Hinnefeld:

A table describing the percentage of people in each range would be informative but not useful to the health physicist doing the dose reconstruction. Capturing the data to build the matrix would be difficult – information is available for some years and not others. The data is neither consistent nor reliable. However, if records can not be found, NIOSH and ORAU make assumptions that are claimant-favorable. No decision can be made for a population that can not have dose reconstructions done; the SEC rule applies industry-wide. Presumption of causation is established by statute; there is a soon-to-be published rule for determining Special Exposure Cohorts.

Concern:

The section is only a discussion of the procedures but nothing about the findings. Where is that information found?

Comment:

Badges were pulled and showed only 250 on the record. Readings were only beta and not gamma, so should have been 500.

Question:

How many claims have been awarded in Idaho?

Norman Rohrig:

Of the six hundred claims filed, four have been awarded. However, these are high-dose cases that easily qualified. Many claims are for cancers that are highly unlikely to be related to radiation, especially at low doses.

Question:

What is considered a high dose?

Stuart Hinnefeld:

A reported dose of 40-50 rem is considered high. It is very important to ensure dose information is as complete as possible.

Concern:

Does age factor into the reconstruction?

Stuart Hinnefeld:

Yes, some cancers are more common at advanced ages. This problem is addressed in the risk model. NIOSH and ORAU only have to do the reconstruction up to the time the cancer is diagnosed – any subsequent doses are not counted in the probability of causation.

Comment:

Radiation workers should be covered for medical for life; they are doing work that other people never would consider. Now they (radiation workers) are being cut off from medical benefits when they most need the help.

Comment:

Workers can't get insurance anywhere else and are stuck in a paradox. We don't want to die out there working with the radiation until the age of 65. Medical coverage is more important than financial compensation.

Question:

Old treatments were harsh and painful. For example, if you received hand contamination you would first wash with lava soap, then with Tide and a scrub brush. If you were still hot, you had to put your hands in rubber gloves filled with Clorox. This bleached the radiation out but it turned your hands into raw meat from the burning. Would that then count as an internal dose since it was not until after the treatment that the dose went on the report?

Stuart Hinnefeld:

Despite the harsh treatment, that would still be considered an external dose.

Mr. Murray concluded, asking if there were any further concerns, questions or comments. The following document was provided to Stuart Hinnefeld for the record:

- Former Worker Medical Surveillance Program at Idaho National Engineering and Environmental Laboratory (INEEL), Phase I Needs Assessment, Oil, Chemical, and Atomic International Union Center for Biology of Natural Systems, Queens College, University of Massachusetts, Lowell, MA, October 1998.

Mr. Murray thanked the participants again. The meeting was adjourned at about 4:30 p.m.

Attachments:

- Sign-in Sheet
- Presentation by William Murray: *Development of the Idaho National Engineering and Environmental Laboratory Site Profile*
- Technical Basis Document for Idaho National Engineering and Environmental Laboratory – Site Description
- National Academies Letter Report to Review Identification and Prioritization of Radionuclide Releases from the Idaho National Engineering and Environmental Laboratory (2001)