



NIOSH Dose Reconstruction Project Meeting On Oak Ridge National Laboratories Profile

Date:

November 8, 2004

Meeting with:

Oak Ridge National Laboratory Atomic Trades and Labor Council

Attendees:

(ATLC attendees identified themselves either by ATLC or the plant they worked in)

E.W. Seals	Dave Barncord	Kent Francis
Carl Scarbrough	Carl Wright	Jim Blankenship
Kevin Lawlor	John Keeble	Ernest Henley
Jeff Reaso (Check spelling)	Sean Russell	Mike Day

NIOSH and ORAU Team Representatives:

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

William Murray – Oak Ridge Associated Universities (ORAU)

Vernon McDougall – ATL International, Inc.

Robert Burns – Shonka Research Associates

Mark Lewis – ATL International, Inc.

Dawn Catalano – ATL International, Inc.

Melissa Fish – ORAU

Proceedings

Mark Lewis opened the meeting at 1:25 p.m. He welcomed everyone and thanked those who had helped get the meeting scheduled. Mr. Lewis introduced the NIOSH/ORAU Team and encouraged participants to feel free to ask questions or make comments at any time during the presentation. He added that the Site Profile is considered a “living document” that is subject to revision if new information becomes available. Mr. Lewis then asked Mr. Ulsh if he would like to make any remarks.

Mr. Ulsh also thanked everyone for participating and explained that NIOSH has been tasked with dose reconstructions for claims filed under the Energy Employees Occupational Illness Compensation Program Act (EEOICPA). He stated that the purpose of the meeting was not to present a finished product, but to continue gathering input from workers. Mr. Ulsh stated that the document is only a “first cut.” He said the Site Profile provides information to be used to reconstruct doses for the site, and since no one knows the site better than the workers, NIOSH and ORAU need their input. He thanked the participants for inviting the Team and turned the meeting over to Mr. Murray.



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Mr. Murray explained that a recording device was being used only to ensure accuracy of the minutes. No one would be quoted directly and anything said would only be noted as questions or comments without attributing it to a particular individual.

Mr. Murray pointed out that he and Mr. Burns were the Site Profile Team Leaders for the Y-12 site and X-10 (Oak Ridge National Laboratory) respectively and that they would be happy to answer any questions regarding either site. He said that the presentation includes information from both Sites, since it is known that many employees have worked at both Sites. Mr. Murray added that the administration of EEOICPA is in transition in accordance with a recent change by Congress. Subtitle B covers radiation-induced cancer, beryllium disease, and silicosis for people who worked at underground test sites. Compensation for approved claims is \$150,000 plus medical coverage. Subtitle D, which covered exposure to toxic chemicals, was changed to Subtitle E. Administration of Subtitle E was transferred from the Department of Energy (DOE) to the Department of Labor (DOL).

Mr. Murray said that this change does not affect NIOSH's and ORAU's participation in the radiation dose reconstruction since that falls under Subtitle B. He explained that the office within NIOSH, which is responsible for performing the dose reconstructions, is the Office of Compensation and Analysis Support (OCAS). Due to the size of the project, it was necessary to contract out a considerable amount of the work ORAU was selected to do dose reconstruction as well as the Worker Outreach Program. Mr. Murray provided background dates on the enactment of the EEOICPA, and said that the purpose of the meeting was to discuss the Site Profile and serve as a forum to document worker concerns and issues.

Question:

Are claimants for Subtitle B automatically forwarded and submitted for Subtitle E? It was my understanding that anyone who qualified for Subtitle B would not have to re-apply and could also be awarded compensation under Subtitle E.

Vernon McDougall:

There is some wording in the Act that a positive finding under Subtitle B can be used for Subtitle E. The wording is ambiguous; we will have to wait and see how it works out.

Comment:

The medical screening program produced a large amount of data that was compiled into a Needs Assessment for Queens College in New York. It does not seem likely that you have all this information in the Site Profile.

William Murray:

The Queens College Needs Assessment was made available to the Site Profile team leaders by NIOSH. It is on a restricted drive for NIOSH and ORAU staff to use in their research.

Question:

Is K-25 going to have a Site Profile done?

William Murray:

Yes, but that document is not completed yet. NIOSH and ORAU will plan another meeting in Oak Ridge when it is done.



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Comment:

There is a belief expressed by some labor representatives that the Compensation Program is unworkable. More than 56 different kinds of chemicals that workers have to interact with are too hard to trace. It seems that the program can not be successful on a technical level. Do NIOSH and ORAU consider that kind of information?

Vernon McDougall:

That criticism is more focused on the chemical side (Subtitle E). A lot of people have already been compensated under Subtitle B.

Brant Ulsh:

Approximately 17,000 claims have been received so far, and more than 5,000 of them have been completed. An estimated 30% of the claims have been approved, although I do not have the exact figures on hand. Dose reconstructions are done on an individual basis when the claims are not part of a Special Exposure Cohort. NIOSH is not involved with Subtitle E. So this only refers to the radiation claims.

Comment:

It will be impossible to do accurate dose reconstructions for the employees at this plant because of the inaccuracy of the records. One example is the way workers were told to remove their dosimeters when there was the possibility their dose would go over the limit before the job was completed. This was common practice but never documented.

Vernon McDougall:

If there is a strong feeling that the dose can not be reconstructed accurately, then either individuals or groups can file for Special Exposure Cohort petition.

Mr. Murray continued with his presentation. He stated that the purpose of the meeting is to explain how the Site Profiles are used; to document worker concerns; and give an opportunity for an exchange of information. He expressed his conviction that the Outreach meetings are both useful and productive. He cited changes to the Site Profiles from Hanford and the Savannah River Site that resulted from information learned at meetings with their unions. Mr. Ulsh interjected at this point, saying that NIOSH and ORAU are committed to include new information that is received in all dose reconstructions as well as the Site Profiles. He stipulated that new information is never used to reduce a completed dose reconstruction.

Mr. Murray explained that the Site Profiles are technical site-specific documents. They are intended for use as a handbook for health physicists in performing dose reconstructions. A standardized reference helps to minimize the need for interpreting data. It also helps to ensure consistency among dose reconstructions for claims at the same site.

He described the six different sections of the Site Profile: the Site Description, External Dose, Internal Dosimetry, Occupational Environmental Dose, and Occupational Medical Dose. He explained the ORAU and NIOSH review and approval processes, stating that each section is carefully and repeatedly reviewed prior to release for use in dose reconstructions.

Question:

Where did the information that was used in the Site Profile come from? Did any of the data come from individuals?



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William Murray:

The Team uses available information, starting with DOE reports and records. Other sources include documentation from the Atomic Energy Commission and the Manhattan Engineer District. The reason for meetings such as these is to get worker input.

Question:

Why was labor input not included in the original draft? They do the hands-on work and know best what has gone on in the plant.

Brant Ulsh:

Several members of the Advisory Board on Radiation and Worker Health that oversees NIOSH's and ORAU's work on the project represent labor. The Board made a recommendation in late 2003 that NIOSH set up a Worker Outreach Program. That Program was not established formally until April 2004. Work on developing these Site Profiles began in May 2003, almost a year before the Outreach Program was set up. Since the Outreach Program was not in place before the work on the Site Profiles was started, one method we have used to obtain input from workers is to hold meetings such as these to gather information from those workers who are out on the Sites.

Comment:

The workers did not have input to the Site Profile in the beginning like we did with the Needs Assessment. There was a lot of participation in the development of the Assessment from workers who had relevant information. The Needs Assessment contains a great deal of information that should be included in the Site Profile.

Brant Ulsh:

One of the reasons for Subtitle D being transferred to the DOL was hope for improvement in administering the program. Mr. Murray will provide a means for you to submit comments on specific incidents – that kind of information is much needed in addition to the Needs Assessment.

Vernon McDougall:

When reviewing the document, you can tell whether the Needs Assessment was used as a reference by checking for footnotes that reference the Needs Assessment. Also, if you believe anything is inaccurate or missing, submit formal comments to NIOSH. You will get feedback to say how your input changed the document.

Question:

Can the union request that Mark Griffon review the Site Profile on our behalf?

Vernon McDougall:

It might be a conflict of interest for Mr. Griffon to do it since he is a member of the Advisory Board. You can make the request to him. And you can certainly have someone you trust to analyze the Site Profile for you.

Mr. Murray described the Site Description as an overview of the facilities, activities, material and radioactive sources at the site. He added that functions change drastically over time, and that is considered in the Site Description. Items included in the ORNL Site Description are the Research and Development laboratories, reactors and accelerators, radionuclides on the site, and



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accidents and incidents that affected the plant on a large scale. Mr. Murray said that much of the work on Y-12 was related to uranium enrichment in the early days. Later, work continued on nuclear weapons development and component fabrication and the storage on enriched uranium. He pointed out that there was a large criticality accident in 1958.

Mr. Burns mentioned several major incidents included in the ORNL Site Profile but added that there was not enough information to list the 2002 strontium event. This is one example of how personal records would help in documenting smaller incidents. Mr. Ulsh stated that there are too many small spills to include them all in the Site Profile. It is most effective to deal with them on an individual basis in dose reconstruction reports.

Mr. Murray suggested that the telephone interview is the best opportunity for this kind of worker input. He said that the transcript is sent back to the claimant to verify that it is complete, and also that it can be used as a reference for other claims. He explained that NIOSH and ORAU are in the process of developing a co-worker study group and deciding how to use co-worker data when an individual claim lacks sufficient dose information. Mr. Murray explained that the Occupational External dose takes minimum detectable levels into account when records show zero dose for an individual known to have worked in an area where exposure was possible. A “missed dose” is calculated at a level less than the minimum that a badge could detect, and then multiplied for repeated badge readings. This is a claimant-favorable assumption that NIOSH and ORAU make in addition to official DOE records that are used in dose reconstruction.

Mr. Murray stated that the Site Profile states that the dosimeters at ORNL measured beta, gamma, and X rays from 1943 to the present and neutron radiation from 1945 to present. At Y-12, the dosimeters measured beta, gamma, and X rays from 1948 to the present and neutron from 1950 to present. He noted that only a small percentage of the work force was monitored prior to 1961. Mr. Murray also said that there is a data gap for the years between 1943 and 1948, and that NIOSH and ORAU are trying to reconstruct reasonable dose values for that time. Mr. Murray also said that bioassay programs were in place starting in 1947 at ORNL and in 1948 at Y-12 to document the workers’ occupational internal doses.

Comment:

Workers were asked to provide urine samples. But many times there would be a time lag between when the exposures occurred and when the samples were collected, particularly when the request was made on a Friday. This is one example of why the data is inaccurate and workers are not confident about the records NIOSH and ORAU are using.

William Murray:

NIOSH and ORAU can make adjustments for this type of situation by looking at co-worker data and patterns of exposures. Another way to handle this is to use an exposure matrix to estimate internal exposures by job category.

Comment:

A number of events discussed in the Needs Assessment were reported in workers’ journals that were simply notebooks they kept. Journals that workers kept in notebooks disappeared after the workers retired. That information would be valuable but can not be retrieved.



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William Murray:

NIOSH and ORAU have used monthly and weekly Health Physics reports that provided information on what kind of work was being done on the site and on radiation exposures at Y-12 in developing the Site Profile. That information can be used for dose reconstruction as well.

Question:

What would NIOSH and ORAU do in a case where someone was directed to remove their dosimeter while still on the job?

Brant Ulsh:

We have heard this comment before in relation to construction workers in the early days. NIOSH and ORAU know that this can make a difference in the dose reconstruction, so we are holding these claims until a method is designed to deal with this issue. NIOSH and ORAU's first responsibility in processing claims is to get it right, and then to do it in a timely fashion. If the probability of causation is close to 50% but not quite there, we have to look closer at the dose reconstruction, and be more precise. NIOSH is directed by Congress to be on the side of the claimant when there is doubt in a claim. The main goal is to see if the probability of causation reaches 50 percent; small fractions of millirems are not of concern unless the probability of causation is close to 50%, where it might make a difference in the compensability of the claim.

Question:

Is the type of work a person was assigned to taken into consideration for dose reconstructions? Maintenance workers were all around the ventilation system, but there is very little in the Site Profile about that particular area although those workers often received significant doses.

Brant Ulsh:

NIOSH and ORAU look at the job duties involved in different types of work when making determinations for dose. Some of the things considered are protective measures taken on the job.

Question:

Claimants are often survivors. The survivor doesn't know what work activities the employee did or where the employee performed the work. How does the claimant prove anything?

William Murray:

That is the reason NIOSH and ORAU ask for references to co-workers during the telephone interview. While it is not possible to get every detail from co-workers, they can sometimes provide information that would otherwise not be included. It becomes difficult when the worker was involved in a classified job. In those cases NIOSH and ORAU can conduct secure interviews if the claimant is still living.

Mr. Murray explained that the occupational environmental dose is primarily intended for workers who were not monitored but could be exposed to radioactive materials in the air, radiation sources inside buildings such as X-ray machines, and from the general work environment. NIOSH and ORAU use site-wide information to calculate the external dose for the



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unmonitored workers. Annual average exposure rates at X-10 were documented, but not at Y-12. Three fly-over surveys were used but the resolution was not sufficient. Additionally, a detailed scoping survey conducted in 1987 provided additional data and the mean dose rate was determined. Mr. Murray stated that the environmental internal dose is calculated from intake based on the annual air concentration of radionuclides on the site that the workers can inhale. These doses are added to the worker's official dose record and this is above and beyond DOE dose records. Mr. Murray also stated that medical dose is another dose that DOE does not include in the dose record. the occupational medical dose is calculated for employer-required X-rays only. NIOSH and ORAU base the dose estimates on several factors, including how often the X ray was taken and the type of equipment used.

Mr. Murray concluded his presentation with information on how and where to submit formal comments to NIOSH. He said to be sure to reference the Site Profile in any correspondence. Mr. Murray commented that NIOSH and ORAU are making every effort to get input from the workers to use in revising the Site Profile to make them as comprehensive and accurate as possible.

Mr. Lewis closed the meeting saying that worker input gives labor a voice in the Site Profiles. He said that NIOSH would follow up on any comments that are submitted so workers will know that their concerns have been addressed. The meeting was adjourned at approximately 2:45 p.m.