



NIOSH Dose Reconstruction Project Rollout Meeting for the Bridgeport Brass Site Profile

Meeting Date:

October 5, 2005, 10:15 a.m.

Meeting with:

United Auto Workers (UAW), Region 1-C and Bridgeport Brass Retirees at Adrian, Michigan

Attendees:

Name	Organization
Phillip Winkle	International Representative, UAW Region 1-C
Hoyt Emerson	International Representative (Retired), UAW Region 1-C, former Bridgeport Brass worker
J.D. Kelly	Bridgeport Brass Retiree
Graydon Ballard	SEIU, Bridgeport Brass Retiree

NIOSH and ORAU Team Representatives:

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

Robert Vogel – MJW, Site Profile Author

William “Bill” Murray – Oak Ridge Associated Universities (ORAU), Worker Outreach Team Leader

Mark Lewis – Advanced Technologies and Laboratories International Inc. (ATL)

Mary Elliott – ATL

Cindy Bloom – MJW, Site Profile Team Leader for AWE Sites (by telephone)

Proceedings

Mr. Lewis began the discussion at 10:15 a.m. by thanking the union representatives for inviting the Worker Outreach Team to their meeting. He described how his union background in the nuclear weapons complex led to working for the passage of the Energy Employees Occupational Illness Compensation Program Act (EEOICPA), which led to his employment with ATL as a labor liaison on the NIOSH project.

Mr. Lewis explained that the Site Profile Team uses government and contractor records during the development of the site profile documents. NIOSH and ORAU are interested in getting information from former workers that may not be included in the records from the U.S. Department of Energy (DOE) and its contractors at the sites. The labor perspective is important because the “official” records do not always accurately reflect the work practices and radiation safety issues at a given site. Although the Site Profile for Bridgeport Brass is complete, it is a “living document” that can be revised if new information becomes available that could impact claimants’ dose reconstructions.

Mr. Lewis said that notes were being taken and a recording was being made for the purpose of producing accurate minutes of the meeting, not to reflect what comments are made by whom.



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Draft minutes will be sent to the union leadership for review to ensure that all of the comments and concerns are captured.

Mr. Tomes explained that he is a health physicist on the Dose Reconstruction Team at NIOSH. Because of the large scope of the task, NIOSH provides oversight for ORAU during the Site Profile development and dose reconstruction process. NIOSH also provides a review process to ORAU during the document development. When the Site Profile is complete, it provides information for use in the dose reconstruction process for EEOICPA claimants. His primary concern at the meeting is to get information and to make sure any comments or issues raised at the meeting are followed up.

Mr. Lewis introduced Bob Vogel as the author of the Site Profile, and said that the Site Profile Team Leader for Atomic Weapons Employer (AWE) sites, Cindy Bloom, would be participating in the meeting by telephone. He introduced Bill Murray to make the presentation of the Bridgeport Brass Site Profile.

Mr. Murray said that the Bridgeport Brass site was considered an Atomic Weapons Employer. He explained that the AWE sites were usually under contract with the U.S. Atomic Energy Commission (AEC) for very specific work during a short period of time. Mr. Murray briefly discussed a packet of information that was given to each attendee. Three brochures from NIOSH regarding the dose reconstruction process are included, as well as the presentation, the Site profile, and contact information for the U.S. Department of Labor (DOL) Resource Center that handles EEOICPA claims for Bridgeport Brass.

Mr. Murray presented a brief overview of the Energy Employees Occupational Illness Compensation Act of 2000 (EEOICPA). All EEOICPA claims are filed through the Department of Labor. Subtitle B of the Act provides for compensation for radiation-induced cancers, berylliosis and some silicosis claims. NIOSH deals only with the radiation claims. After the DOL receives a claim and verifies employment and medical diagnosis, it is sent to NIOSH for a dose reconstruction. NIOSH established the Office of Compensation Analysis and Support (OCAS) to facilitate the dose reconstruction effort. Due to the large number of claims submitted, ORAU and other contractors have assembled a large team to perform the dose reconstructions and other associated tasks.

Mr. Murray stated that the purpose of the meeting is to discuss the Bridgeport Brass Site Profile and its use in the dose reconstruction process. The meeting is also an opportunity for the team to gather suggestions and information from the attendees, as well as documentation of concerns and issues, and to answer any questions regarding the site profile and the dose reconstruction process.

Question:

The contract period was over a long time ago. How can a claim be filed for a worker who is now deceased?

Bill Murray:

A claim can be filed by survivors of the employee. If there is a living spouse, he or she can file the claim. If there is no spouse, but surviving children, they can file a claim jointly and the award will be split equally among them. In these situations, because the employee is no longer able to give information regarding work experience, health physicists must rely more on the site profile and co-worker data to reconstruct the worker's radiation dose.



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Mr. Murray explained that the Site Profile is used by health physicists to reconstruct a claimant's radiation dose. The profile is a handbook of site-specific technical information that minimizes the need for interpretation of data – allowing the dose reconstructors to consistently use the same information as a framework for all claims from that site. A worker's personal medical records and personal interviews during the dose reconstruction process round out the information needed for individual dose reconstruction. Since the Site Profile can be revised as new information becomes available, a claim that has been previously denied can be reopened if new information comes to light that impacts its outcome.

The Bridgeport Brass Site Profile includes sections on the site description and estimation of internal dose and external dose (including occupational X-ray dose), as well as radiation dose from residual radioactivity. The Site Profile can be viewed at this address on the NIOSH website: <http://www.cdc.gov/niosh/ocas/ocastbds.html#bbrass>.

The site description for Bridgeport Brass is an historic overview of facilities and activities at the Havens Laboratory in Bridgeport, Connecticut during the AEC contract periods of 1950 and from 1952-1962, and at the Adrian Plant during the AEC contract period from 1954 to 1962. Work at the Havens Laboratory included research and development on the extrusion of natural uranium and thorium metals. The Adrian Plant extruded depleted, normal and low-enriched uranium metal and thorium metal, as well as some recycled uranium. This section describes the radioactive materials and radiation sources at the sites and identifies potential radiation exposures from these radiation sources. It also documents suspected increased uranium exposures in April 1961 at the Havens Laboratory based on rush requests for air sample analyses and follow-up bioassay samples. Mr. Murray asked the attendees if they recalled whether or not any employees ever traveled back and forth between the Connecticut and Michigan plants. They responded that they did not recall any instances where that ever occurred. Mr. Murray said that it could be important because it could account for additional dose for some employees.

Ms. Bloom indicated that there was evidence in the records that some employees from the Havens Laboratory did travel to the Adrian plant for special assignments, as well as Adrian employees going to the Havens site upon occasion.

The section in the Site Profile on Internal Dose documents the estimated intakes for uranium and thorium, and also plutonium-239 and neptunium-237, which may have been present in recycled uranium in small quantities. Uranium urinalyses are available for many workers. Co-worker uranium intake analyses were used to estimate intakes for unmonitored workers. Source term information was used to estimate intakes of other radionuclides.

The section on External Dose indicates that film badge data are available for the period from late 1958 to early 1961. The site profile team analyzed this film badge data to estimate doses during unmonitored periods and to unmonitored workers. This section also discusses radiation dose received from employer-required X-rays, often at the beginning and end of a worker's employment as well as annual chest X-rays. X-rays taken for injuries do not count in this dose.

Comment:

I had a physical shortly after I left the plant. The doctor from here in town diagnosed cirrhosis of the kidney and liver and said that I should quit drinking. I have never been a drinker. When I asked him later for the records, he said he had lost the paperwork.



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Bill Murray:

Was this a recent occasion – when you asked him for the records?

Response:

No, this was shortly after I left. I know he had records, but he did not want to get involved.

Mr. Murray continued the presentation: The site profile team considers the medical practices at the site. They assign a radiation dose for a chest X-ray for every worker. If there was an X-ray at the initial exam, a dose is assigned for that – as well as for any other X-ray the claimant was required to have during the contract period here. This is one way to maximize the claimant's dose – to give them the most favorable chance to have the compensation claim awarded.

All of a claimant's radiation exposure information is entered into a computer program of radiation and risk information to determine the radiation dose. If the program finds that radiation is "as likely as not" to have caused the claimant's cancer (greater than 50% probability) the claim is awarded.

Comment:

My diagnosis (for cirrhosis) came from blood tests I had at the lab in Bixby when they did a check on me there. The diagnosis went back to the doctor. The doctor quit practice some time after I left the plant, and when I asked for the lab results he said that he had destroyed the records.

Comment:

There was a sizeable pile of beryllium metal, 20-foot long rods out on the floor in the shop area. I do not know what they used it for – I do not recall ever being told. There was a tag on it that said it was beryllium and it had an address on it, so I called and asked them to send me a pamphlet about the beryllium. I do not know what ever became of the pamphlet, but I can look for it.

Bill Murray:

This compensation program also covers illness from beryllium exposure if your plant is listed as a beryllium site. I am not sure if it is.

Response (from another attendee):

I do not think it is.

Cindy Bloom:

... Not with the contract. But for people working with beryllium, X-ray exposures may have been different. If you have any information on the medically-required X-ray exposures because you were working with beryllium, it would be great if you could share that with us.

Mark Lewis (to Commenter):

Did you hear her? Could you repeat that, Bill?

Bill Murray:

If a worker has a beryllium exposure, particles of the metal are breathed into the lungs and remain there causing chronic beryllium disease (berylliosis). If there is a suspected exposure to beryllium, additional chest X-rays are taken. This information should be in the records that NIOSH receives. But the claims that we are talking about today would not include the medical dose from beryllium X-rays.



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Mark Lewis:

Has beryllium been tied to the site?

Bill Murray:

They are saying that it was not.

Mark Lewis:

Cindy, do you know if beryllium has been associated with the Adrian site?

Cindy Bloom:

Let me check. Our part of the program is not looking at beryllium issues, but that will be looked at in a separate program. I do not see Adrian listed as a beryllium site.

Bill Murray:

Bob (Vogel) did not think it was either.

Mark Lewis:

This information could be very valuable for you and your co-workers.

Response (from Commenter):

I will see if I can find that information. If I can find it, I will mail it to one of you.

Mark Lewis:

Do you know anyone who worked with the beryllium? Do you know what they did with them or where they moved them?

Response (from Commenter):

I suppose that maybe it was used in the foundry or in the extrusion department. I worked down in the forging department the last few years before they closed down.

Mark Lewis:

Thank you.

Comment:

I was all over that plant. I could run any kind of machinery they had in the finish department. The last couple years, I worked in Eaton for (unintelligible, sounds like "Adrian and Neeland.")

Bill Murray:

Did you ever see any beryllium there?

Response:

If I did, I did not realize what it was.

Mark Lewis:

We are talking about in the late 1950s or early 1960s.

Response:

This was in the late 1950s.

Bill Murray:

Did you say that you called the company (about the beryllium)?

Response:

They had an address. I either wrote to them or called them and asked them to send me some information. They sent me a pamphlet about the metal.

Bill Murray:

There was a company in Ohio – Brush Beryllium...



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Mark Lewis:

That is Brush-Wellman. They had plants at Luckey, Lorain and Elmore, Ohio.

Response:

I will look through my papers and see if I can find it.

Bill Murray:

If you could let us know, it would be very helpful.

Cindy Bloom:

Adrian is not listed as a beryllium site. I looked at an extrusion plant in Ashtabula, Ohio – Reactive Metals – that went on to do the work, and also at the Havens Laboratory. Neither of those is listed as a beryllium facility either.

Bill Murray:

It would be interesting to see why the beryllium was here – if they have any records.

Response:

There was pile of it in rod form, maybe forty or fifty pieces of it.

Bill Murray:

There is an address at the back (of the presentation) where you can send the information directly to NIOSH. This is very interesting information.

Mark Lewis:

I will follow up with it, too.

Mr. Murray continued with the presentation: Because there were foundry-type operations that would have produced dust that may have remained in the environment, residual contamination is considered for the site as well. Residual contamination is considered at the Adrian Plant during a covered period from January 1, 1963 through October 5, 1976. Based on available information, annual doses for both internal and external radiation exposure to residual contamination are given for that period. Remediation (clean up) is considered to have been complete as of October 5, 1976.

Bill Murray:

Is the plant still there?

Response:

Yes, it is called Delphi now.

Mark Lewis:

That is close to here, isn't it?

Response:

Yes. It is about two miles down the road. Same departments, same structure, same roof, same everything – it is still there.

Bill Murray:

Buildings have been torn down at many of the sites that had contracts back in the 1940s through the 1960s.

Comment:

Another thing that could have presented a potential safety hazard at our plant... There was a huge forging press from Germany in the foundry department. They sprayed the dies with a big



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oil gun to help the forgings come out of the dies more easily. One night, they brought us some bags of powdered red lead that they wanted us to mix with the oil. I called the Chief Steward that night and he called (*name withheld*), who was the President of the Local. (*Name withheld*) called the UAW Safety Representative in Detroit and asked him to send someone to the plant. The Safety Rep came the next day and questioned the management about the powdered red lead. Some engineers were there from California and they told him that they used it all the time at their plant. The UAW man told them they were not going to use it at our plant, so they bagged it up and that is the last we saw of it.

Mark Lewis:

But did they use the lead at the plant?

Response:

No, we never did use it.

Bill Murray:

These are the kinds of things that we want to hear. They are not related to radiation, but they could relate to Subtitle E for toxic exposures. This is an example of the type of information that we would not find written down some where.

Response:

The way that stuff was handled out there – that stuff was just sitting around on open skids that were moved around the plant with forklifts – that material could have been anywhere in the plant. There was just an aisle between the Finish Department and they extruded the aluminum to that press.

Bill Murray:

This is common when there are foundry operations with other industrial processes such as extrusion. One of the AWE sites with a lot of people involved is Bethlehem Steel in the Buffalo, New York area. We have had some experience in going out to do the site profiles at these places, so the teams are familiar with industrial-type operations – presses, rolling mills, cutters, etc. If (*name withheld*) would be interested in giving any information, it would be helpful.

Comment:

The President of the Local that he mentioned is still alive and in the area. I am sure we could contact him if you would be interested in talking to him.

Bill Murray:

We have lots of extra handout materials here. If you see him regularly, please give him some of the information so he can look through it. NIOSH is primarily interested in the activities and operations in the plant, as well as any monitoring that was done. Obviously, he was very active in union affairs and would have been involved in health and safety to some degree. If he would like to take a look at this and has anything to add, or disagrees with anything, that would be useful information. We can tell him who to contact.

Response:

I will call him. I can verify that story that he was called in the incident with the red lead. We always went through the steps for protocol in these situations. The UAW takes care of its members when there are safety issues.

Mr. Murray concluded the presentation by stating that developing a usable Site Profile is an important task. Many times the workers have information that cannot be found in the written



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records. The site profile teams rely on information from the workers at the site to make the Site Profile a comprehensive and accurate document for calculating dose reconstructions for claimants. Information for revisions to the document can be sent directly to NIOSH at the addresses in the presentation, as well as by facsimile at the number provided. The Bridgeport Brass Site Profile and other information on the EEOICPA program can be found on the NIOSH website: <http://www.cdc.gov/niosh/ocas>.

Mark Lewis:

Do you still have retiree meetings?

Response:

Yes, we are having a luncheon in the auditorium this afternoon.

Mark Lewis:

Do you think you can hand some of these materials out to the retirees there today?

Response:

The biggest part of this retiree group today is from Fischer Body, but some of them may have worked at Bridgeport Brass as well. We have lost track of a lot of our co-workers after fifty years. Many of them have moved away from here.

Comment:

One gentleman (*name withheld*) who worked at Bridgeport Brass for many years passed away recently after having been diagnosed with a lymphoma. We never gave a thought that it may have been related to our work. His wife is still living in the area.

Bill Murray:

She is eligible to submit a claim.

Response:

I am going to talk to her about that.

Mark Lewis:

There are a lot of people that you could talk to about what you have learned today that may be eligible for the program.

Response:

This is something you just do not think about unless you are aware of the program. I have thought of several people during our meeting this morning who have died from lymphomas. *Turns and asks another attendee:* The gentleman he just mentioned worked in the plant how long?

Response (from other attendee):

I know he worked in the plant from 1952 until the forging press shut down around 1960 or 1961. The press was in operation for quite a while after the rest of the plant phased out.

Mark Lewis:

Think of how many employees who have passed on since then whose spouses and children do not even know they are eligible to file.

Response:

They do not even know anything about the program.



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Mark Lewis:

This is part of the Outreach Program, too. We would like for each one of you to help us get the word out.

Response:

I will talk to his wife and give her this information. I will tell her that she can file a claim.

Response (from other attendee):

Have you talked to her recently? Her phone has been disconnected and I think she may have moved. I tried to call her the other night.

Bill Murray:

There are twenty-eight claims in process now for former Bridgeport Brass workers from Adrian or their survivors. Of those, dose reconstructions are complete for twenty-one claimants and twelve of those claims will probably be awarded compensation.

Response:

My cousin (*name withheld*), who now lives in Alabama, worked here during the contract period. He has filed a claim and is expecting compensation any time now. He has been in Alabama since the plant closed.

Response (from other attendee):

Another former employee's wife received her check about two months ago.

Bill Murray:

Forty-seven claims have been submitted for the Havens Laboratory in Bridgeport, Connecticut.

Comment:

Are those claims scattered across the country? It seems that there were a lot of workers at the plant here who were from Alabama and Tennessee. Many of them moved back there after the plant shut down. I wonder if any of them have submitted claims.

Bill Murray:

They keep statistics for the claims by site, not where they were submitted.

Response:

I am absolutely certain that there are many people out there who do not have the slightest idea that they should file claims – former workers or their survivors. They do not know what is going on. I did not know about it until you called me in March.

Mark Lewis:

This is a long shot, but do you remember if your Local kept records of accidents or incidents? Would there be any thing there that could be used as data? The Oil, Chemical and Atomic Workers (OCAW) at my site went back and found records from the 1950s and 1960s.

Response:

(*Name withheld*), the Local President we mentioned before, would know. He was a very active, right on top of things. I might be able to call him today and maybe you can talk to him before you leave. He retired but he is still very active around town. I will see if I can find him when we are done.

Mark Lewis:

OK. Maybe today you could ask some of the people at the retirees meeting if they know of anything that might be useful.



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Response:

It might not be a bad idea for one of you to go into that retiree meeting and tell them very briefly about the program. You could ask them if they know of anybody who might have information.

Mark Lewis:

It would certainly be well worth doing, wouldn't you think, Bill?

Bill Murray:

Yes, we can do that. We could give them a short summary of the program and tell them that we have information available about the site.

Response:

I have a feeling that there are a number of people who are not aware of the program. This would be a good way to reach out to some of them.

Comment:

I was on board a ship that was involved in nuclear testing at Bikini Atoll in July 1946. There were 42,000 service people involved in that operation called Task Force One. There were scientists on board taking water samples after the explosions. We were about ten or twelve miles out from the explosion site. The first test was done above water and the second – on July 25 – was an underwater test. The volume of water that went up from that test was amazing. You will never see anything like it in your life – very pretty. After that, I had a lot of red blotches all over my chest and arms that I had for a long time after I was discharged. When the Korean War broke out in 1950, they called me back into service with the Reserves. They asked me then if I wanted to go over to the medical building to have it checked out and I refused because I did not want to be classified as 4-F. After a few more years, the blotches went away. Many years later, I started to get black moles and went to a dermatologist to have them checked out. I asked if they were cancerous. He said no, and used some kind of acid to remove them. Does this program have anything to do claims for the nuclear testing from that period?

Mark Lewis:

If it has to do with anything military, it would be under another program. Another government agency oversees that program. Maybe those claims are handled through the RECA program with the Department of Justice. Does anyone know? Radiation claims from military personnel are not included in the EEOICPA program. Are you still there, Cindy? What is the military program for exposure to radiation? A gentleman here is concerned about his exposure during testing at Bikini Atoll.

Cindy Bloom:

I believe there is some information on the OCAS website that lists other programs dealing with radiation exposure. Here it is: military veterans involved in atomic nuclear weapons testing. Let me see if I can find the contacts for that. The phone number is 1-800-729-7327 for the Radiation Exposure Compensation Program through the U.S. Department of Justice out of Washington, D.C. Information on the program is on the Department of Justice website: <http://www.doj.gov>.

Mark Lewis:

Thank you, Cindy.

Cindy Bloom:

You're welcome.



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Question:

I am curious as to what your follow up is going to be from this meeting today. Are you going to advertise? Are you going to come back? Are you going to have some of these people to try to find some of these other folks? What is the story? I am really not sure where you are going to go from here.

Bill Murray:

We came out here in March and met with your union leadership. We talked about getting some retirees together and that did not happen. If there are some people that you would like to share this information with and you can get them together, we can set up a conference call if they have some information.

Response:

So, if we run into someone who worked during this period of time and has either experienced a problem, there is a way that they can contact you folks and be interviewed?

Bill Murray:

There is an interview process in place in the program. If a person submits a claim to the Department of Labor and a dose reconstruction is required, they send the claim to NIOSH and it is forwarded to our team. The Dose Reconstruction Team gets records about the claimant's radiation exposure and their employment at the site. There are several opportunities during the dose reconstruction process for the claimant to provide personal information:

- Before the dose reconstruction begins, the claimant is interviewed by telephone and asked very specific questions. There is an opportunity during this interview for the claimant to give information about incidents or accidents from which he/she may have been exposed to radiation.
- The results of this interview are typed up and sent back to the claimant for approval and to make sure that there is no additional information. After the claimant approves the report, that draft report goes to the health physicists who have the employment records. At that point, the dose reconstruction begins.
- After the dose reconstruction is complete, a draft copy of the dose reconstruction report is sent to the claimant. NIOSH conducts a closing interview with the claimant to review the dose reconstruction results. This is the claimant's final opportunity to provide additional information that may affect the dose reconstruction. If there is no additional information, the claimant will be asked to sign a form that states that there is no additional information to give NIOSH regarding the claim. At this point, the claim record for dose reconstruction is closed.

When NIOSH receives the signed form, the final dose reconstruction report is sent to both the claimant and the Department of Labor for the completion of the compensation process

Question:

Is this meeting the end of the road in the Site Profile development process?

Mark Lewis:

The Site Profile is a "living document," which means that if any new information becomes available that will affect the outcome of dose reconstructions for your site, the Bridgeport Brass



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Site Profile will be revised. At that point, any rejected claims that could be affected by the new information could be re-examined.

Response:

That helps me understand things a little better.

Question:

How is our employment verified? Are our income tax records admissible? I have all of mine from 1949 to the present.

Bill Murray:

Those records can sometimes be helpful.

Mark Lewis:

The DOL is actually the entity responsible for verifying a claimant's employment during the contract period before the claim can be processed. This is done with DOE and contractor records. At times, contractor records can be sketchy.

Bill Murray:

If there are no employment records available, co-worker affidavits may be used to verify a claimant's employment.

Mark Lewis:

The Site Profile is a very technical document put together for dose reconstructors, and much of it is way over our heads. But there are parts of it, like the Site Description, that you should review for accuracy – the activities and the buildings where they took place, things like that. What we need from union input is that kind of information. We need your help to verify these things.

Question:

Do you have a site map for the Adrian operation in there?

Bill Murray:

Yes, there is a map in there.

Cindy Bloom:

It is important to know that we did not separate the Adrian workers into categories. We did not feel that we could do that. This can be very important at some sites.

Mark Lewis:

Cindy, are you saying that at Adrian, there is not a matrix that separates the workers?

Cindy Bloom:

We have chosen to assign everyone the same dose with their intake because we did not break them down into categories.

Mark Lewis:

So, if some workers were exposed to higher doses, we need to know that, right?

Cindy Bloom:

We looked at the people who were exposed to the highest radiation sources and we assigned those intakes and external exposures to the whole worker population. We did not break them down in other ways because we saw no evidence that there were certain areas that were restricted at Adrian. Even if they have no individual dosimetry, they will all have the same dose or intake assigned.



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Mark Lewis:

Do you understand what she is saying there? They have given everyone the highest exposure because anyone could come into the areas where they worked with radiation. Is there anything these gentlemen could do to add more information to help you determine otherwise?

Cindy Bloom:

We would need good documentation if they felt that workers should be broken down into different work groups. We would need some evidence that would show that while uranium was being worked... I am not sure if the information that they provide is based on recollection – and Tom can tell us this – we need some pretty strong information to support that we should break people down into different groups, although our sense is certainly that people who were doing the extrusion had the highest exposures. We do not feel that we can say that workers who were not involved in that... that we can say how much lower their exposures were. We are pretty confident that it was lower, but it is hard to say how much. They did not monitor all the workers. There was some trial monitoring, so it was not comprehensive. But our sense is that they monitored the group with the highest exposure to make sure that ventilation was being properly controlled and that work practices were being controlled. They looked for the people who were in the highest exposure area.

Question:

Did anyone at Adrian wear film badges?

Tom Tomes:

We do have some records of those.

Cindy Bloom:

We do have some records, but they were based on four six-month trial periods. They were testing to see how high the exposures were. External radiation was not a big concern in the early days for people who worked with uranium metal because the dose limits were higher in the earliest days of exposure. But by the 1960s, the dose limits had dropped and the regulatory agencies decided that they wanted to monitor radiation workers more closely. Eventually, by the 1980s, this had evolved into monitoring almost everyone, but by that time the Adrian plant was no longer in operation.

Question:

If a low dose is accumulated over a long period of time, is that relevant? Does exposure over a long period of time make a difference?

Cindy Bloom:

The answers are different for internal and external exposure. We look at an individual's data over time, and the intakes and radiation exposures are broken down into different times. When you take radioactive material into your body and have an internal exposure, it will continue on for long-lived materials for quite some time afterwards. When they calculate the dose for an individual claim, the mathematical calculation is for the years of exposure during the work period, as well as the years of exposure after your work is discontinued.

Tom Tomes:

In the computer program we use, when it calculates whether your cancer was caused by exposure, all that is taken into consideration – the accumulation over the years.



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Cindy Bloom:

We looked at external exposure year by year. We account for the fact that those people in production might have had a little bit higher exposure or lower.

Question:

You were talking about the production area. There was just a wire fence around that – there would have been a lot of opportunity for any contamination to have circulated all around. If the production area got really hot, they would turn a big fan on and just blow it all over the finish department.

Cindy Bloom:

That would show up in the urinalyses eventually when they collected urine samples because your lungs will act like a big air sampler.

Response:

I do not recall anyone ever being tested.

Tom Tomes:

That is the basis for assigning the dose – the urinalyses results.

Cindy Bloom:

If there is a fan blowing the radioactive material away, the person standing closest to the source will have the highest dose. Those are the people they were monitoring. People standing downwind will also have exposure, but the amount of exposure is going to be diluted by the rest of the air that fan is moving as well.

Cindy Bloom:

One other thing I wanted to point out is that I have found an omission in Table 4-1. The units on the external exposures were left out. The units are in roentgens (R) for penetrating radiation and rads for non-penetrating radiation. If you could let your co-workers know, that might be a question some of your co-workers might point out. Please accept my apologies on that.

Mark Lewis:

Maybe when we go into talk to the retiree group, you can extend an invitation to them to gather to talk about any information they might have. I know there is a lot of reading in this Site Profile, but all we are asking is for them to read the parts they understand and review them for accuracy.

Note: The worker outreach team met briefly with the retiree's group after the meeting was adjourned.

Hoyt Emerson (former UAW Region 1-C Representative):

On behalf of the union leadership here, we appreciate your coming here today to meet with us and what you are doing.

Mr. Murray thanked the meeting attendees for taking the time to come to the meeting and share their experiences. The meeting adjourned at 11:45 a.m.