# NIOSH Dose Reconstruction Project
# Rollout Meeting for
# Linde Ceramics Site Profile

## Meeting Date:

June 27, 2005, 1:00 p.m.

## Meeting with:

United Steelworkers Local 1-00277

## Attendees:

| Name | Organization |
|---|---|
| Ralph Krieger | Linde Retiree / United Steelworkers Local 1-00277 |
| Joe Sebastian | Linde Retiree / United Steelworkers International |
| John Antonucci | Linde Retiree |
| Edwin A. Walker | Bethlehem Steel Action Committee |
| Rev. Jerome Livingston | Bethlehem Steel Action Committee |
| Theresa Sweeney | Bethlehem Steel Action Committee |
| John N. Lipsitz | Lipsitz & Ponterio |
| Colby Hagen | U.S. Representative Louise Slaughter's staff |
| Jane Schroeder | U.S. Representative Louise Slaughter's staff |

## NIOSH and ORAU Team Representatives:

Laurie Ishak – National Institute for Occupational Safety and Health (NIOSH), Office of Compensation Analysis and Support (OCAS)
William "Bill" Murray – Oak Ridge Associated Universities (ORAU)
Mark Lewis – Advanced Technologies and Laboratories International, Inc. (ATL)
Mary Elliott – ATL

## Proceedings

Mark Lewis began the meeting at approximately 1:15 p.m. by thanking everyone for taking the time to attend. He introduced himself, describing his role in the project and his background as a worker and union official at a Department of Energy site. He stated that the purpose of worker outreach is to get input from the workers since they are the real "experts" on past work practices.

Mr. Lewis explained that Mary Elliott of ATL was present taking notes of the meeting and making a digital voice recording to ensure that their comments were captured accurately, not to identify who made the comments.

Mr. Lewis introduced Laurie Ishak of NIOSH/OCAS and Bill Murray of ORAU. He then asked the attendees to introduce themselves and include a little information on their background.

**Question:**
You said you worked at the Portsmouth Plant. Is that the same plant that has the Special Exposure Cohort?

***Mark Lewis:***
Yes, it is.

**Question:**
Are claimants from that plant still getting paid without dose reconstructions being performed?

***Mark Lewis:***
If the claimant has one of the twenty-two cancers specified in the Special Exposure Cohort (SEC), there is no dose reconstruction. When the Energy Employees Occupational Illness Compensation Act was written, the three gaseous diffusion plants at Portsmouth, Paducah, and Oak Ridge (K-25), and Amchitka Island, Alaska were named SECs.

**Question:**
Is the SEC process still on-going at these places?

***Mark Lewis:***
Yes.

**Question:**
Does whether a site is active, like the gaseous diffusion plants, or whether the contract has been over for years, like Linde or Bethlehem Steel, make any difference in how a petition for SEC status is handled?

***Mark Lewis:***
That shouldn't make any difference. Employees of the Mallinckrodt facility in St. Louis have been granted SEC status even though the DOE contract there was over a long time ago.

**Question:**
How do you get the Cohort?

***Laurie Ishak:***
An SEC petition must be submitted, along with qualifying evidence, on behalf of a proposed class of employees from DOE, a DOE contractor or subcontractor, or an AWE (Atomic Weapons Employer) facility.

**Question:**
Can NIOSH make a recommendation for a SEC status for Linde?

***Laurie Ishak:***
A petition can only be submitted 3 ways:

- By an individual or a group from the proposed class of employees, or their survivors;
- By one or more labor organizations that represent, or have represented, the proposed class of employees; or
- By a representative named by an individual or group from the class of employees, or their survivors.

Then the petition must be qualified… *(sentence interrupted).*

**Question:**
Who qualifies it?

***Laurie Ishak:***
NIOSH and ORAU will qualify the petition to determine whether it is not feasible to perform dose reconstructions and if there was health endangerment. An evaluation is written and submitted to the Presidential Advisory Board on Radiation and Worker Health, which reviews the report and sends its recommendation to the Secretary of Health and Human Services (HHS). The Secretary of HHS will make a final decision and make a recommendation to Congress, which has thirty days to decide whether to reverse the decision.

**Question:**
If Congress doesn't act within that period of time, what happens?

***Laurie Ishak:***
In the cases of Mallinckrodt Chemical Works and the Iowa Ordnance Plant, nothing was done in thirty days, and these sites were given SEC status based on Secretary Leavitt's recommendation.

**Question:**
But final approval must come from Congress, is that not correct?

***Laurie Ishak:***
No.

**Question:**
Who pays the claims?

***Laurie Ishak:***
If the petition is granted, the Department of Labor must reexamine which claims are eligible. A claimant must have worked at the site for at least 250 days, and have one of the 22 specific cancers in the Special Exposure Cohort. If the claimant has not worked 250 days, or if their cancer is not one of the 22 cancers, a dose reconstruction must still be done.

**Comment:**
I have read a lot about low-dose radiation causing other illnesses besides cancer. Is cancer the only illness that is covered?

***Laurie Ishak:***
Subtitle B only covers cancer, berylliosis and silicosis.

***Mark Lewis:***
The OCAS website has a lot more information about applying for a Special Exposure Cohort. I suggest that you look at Mallinckrodt's petition and go from there.

**Question:**
I'm a little confused. What happens after we submit a petition? Are they still going to do dose reconstructions?

***Laurie Ishak:***
If there is enough information to qualify the petition, ORAU will write a petition evaluation report. They look at the site profile to see what went on at the site. They may get affidavits from petitioners. They look at the documents that were submitted with the petition. The petition evaluation report is sent to the petitioners and submitted to the Advisory Board for review. The

Advisory Board holds a public meeting where the petitioners may comment on the report. Then the Advisory Board makes a recommendation based on the report to the Secretary of HHS.

**Question:**
All of the SEC sites are government sites. Are there any private sites that have been granted Special Exposure Cohort status?

***Laurie Ishak:***
They weren't included in the statute originally. The Paducah, Oak Ridge, and Portsmouth gaseous diffusion plants and Amchitka Island were named SECs in the original legislation. NIOSH and ORAU had nothing to do with that. Since then, there have been petitions from non-government (AWE) sites. Mallinckrodt is one of them.

**Question:**
What makes a government facility different? What makes a private facility eligible? Why are government and private workers treated differently since they all basically did the same thing?

***Laurie Ishak:***
I don't think we do treat them differently. Are you talking about Department of Energy or Atomic Weapons employees, or someone completely outside that scope?

**Comment:**
All the plants worked for the Department of Defense. They all were under the Defense budget, so they all were in some way or another working for the federal government. Plants like Linde and Bethlehem Steel were contractors, but they were essentially doing the same thing. The only employees covered under SEC originally were "government employees." The government is taking care of its employees, but it is not taking care of the private sector.

***Laurie Ishak:***
We can only do Special Exposure Cohorts based on who has applied for SEC status. We are not making any distinction between DOE sites and private industry.

**Comment:**
Every private company that has applied has been denied. The government will not service them. Every private factory has been turned down.

**Comment:**
The government properties don't even have to apply.

***Laurie Ishak:***
I don't believe that is accurate. I don't have the information in front of me…

**Comment:**
I'm guaranteeing you… every private company… These are your records, you work for them. All you have to do is go online. Every private site in America has been denied, but the government sites are being approved. If you get online, the information is there.

**Comment:**
That would be an interesting question for you to answer.

***Laurie Ishak:***
We have only had two petitions approved for SEC status. The website does not have every petition that has been submitted. We have more than thirty petitions. Some of them are from private contractors that worked for DOE that are going through the process.

**Comment:**
Can you check and see if any of those petitions have been denied?

***Laurie Ishak:***
DOE sites have been denied, too. K-25 was denied.

***Response:***
And they didn't even apply.

**Question:**
Why is the private sector denied? That's a very simple question.

***Laurie Ishak:***
We do not do anything with the SEC process – government or otherwise – unless a group of petitioners applies for SEC status. NIOSH and ORAU do not just decide to give an SEC. That does not happen. We do not have the power to just grant SEC status. Congress mandated the four original SECs when they passed the legislation. We have petitions from non-DOE sites.

**Question:**
I have a question about Mallinckrodt. Is that properly defined as a government site or a private site?

***Mark Lewis:***
It's a private site.

***Laurie Ishak:***
It falls under the AWE category. Linde is an AWE site as well. Mallinckrodt went through the SEC process and was approved.

**Question:**
Are we saying that Mallinckrodt and Linde are both "private" in the same sense of the word? Or is Mallinckrodt a government facility?

***Laurie Ishak:***
I think we are using the word "private" incorrectly. Linde can submit a petition if they want SEC status.

**Question:**
So a petition for Linde could attach the most recent site survey as an exhibit, as well as the petition for Mallinckrodt, pointing out the similarities. Can we use the argument that if Mallinckrodt petition was approved, so should a petition from Linde?

***Laurie Ishak:***
The application allows you room to make the argument. We have a petition from Rocky Flats that was originally 200-300 pages. They also sent a 500-page supplement. You can attach any documents you like in support of your petition.

**Question:**
Is there an opportunity in this process for our political representation to get involved? Would there be an opportunity for Representative Slaughter's office to weigh in for the Linde site to get recommended approval?

***Laurie Ishak:***
In the past, Congressional Representatives have gotten involved by writing letters to support petitions. They have shown up at Advisory Board meetings during the public comment period to speak in favor of petitions. I can't think of an instance where a congressional office has filed a petition.

**Question:**
Is there any reason why we can't ask Representative Slaughter's office co-file with someone who is otherwise eligible to file for the petition?

***Laurie Ishak:***
As I said before, I don't remember any instances where a Congressional office has been a petitioner. There can be up to three petitioners per petition. For instance, the Steelworkers Union sent the Rocky Flats petition. You can see the three types of petitioners on the website.

***Bill Murray:***
Can I make a point about government employees versus private employees? The Y-12 plant at Oak Ridge, Tennessee, has always been run by private companies contracted to DOE. Very few of the employees were actually government workers. It was always a private contract funded by the AEC (Atomic Energy Commission). Initially the project was under the Manhattan Engineer District. From 1943-47, the contractor was Eastman Kodak. From 1947-84, the contractor was Union Carbide and its predecessors. From 1984-94, the contractor was Lockheed-Martin. Since 1998, Bechtel has had the contract. These are not government employees. Bethlehem Steel was not a government-owned facility. It was under contract to the AEC.

**Comment:**
At least they were informed about what they were working with.

***Mark Lewis:***
We were informed that we were working with uranium. We were not informed that we were working with plutonium.

**Question:**
Why did the government give the four original Special Exposure Cohorts that status?

***Bill Murray:***
It was because their congressional delegations got it written into the law. It was primarily run by the Kentucky delegation for the Paducah site, but the Ohio and Tennessee delegations got involved to include the Portsmouth and Oak Ridge plants. There was a strong labor influence

from the labor unions. Alaska's delegation had Amchitka written into the Act. Health and Human Services didn't have anything to do with it.

**Comment:**
That is not what was reported in a Buffalo newspaper back in 2001. They said that the reason the four SECs were put in was that there were no records, and the records that the government kept were so misleading that there was no way to do dose reconstructions.

***Bill Murray:***
That may be the reason that was given, but NIOSH has over 1,000 dose reconstructions at the K-25 plant, the Oak Ridge gaseous diffusion plant, because they're not part of the Special Exposure Cohort.

***Response:***
It said they didn't have the information to do the dose reconstructions. I have the article.

***Bill Murray:***
It was the actions of the Congressional delegations, regardless of the reason, that put it into the law.

**Comment:**
Somewhere along the line, someone had to tell them there wasn't enough information to do proper dose reconstructions.

***Mark Lewis:***
The Oil, Chemical and Atomic Workers Union coordinated an effort between the three gaseous diffusion plants. We got together and went to the Congressional offices for our districts. The Congressmen went back to DOE and asked what was going on at the sites. The DOE said they would send their own investigative team in and have public hearings to see if the allegations were true. This was back in the late 1990s. It was a grassroots movement. The Congressional people got more involved and the DOE set up public meetings, and we all went to the meetings. We brought in the people who worked at the plants in the early years and their survivors. The Congressional people were sometimes moved to tears by their stories.

***Response:***
That doesn't help us – it's a lot of song and dance. That doesn't help us. That's why our attorney is asking if we should get Representative Slaughter's office involved.

***Mark Lewis:***
Public meetings, congressional involvement – all this can make a difference. This is how the gaseous diffusion plants got it done. This is not what we are here to talk about at all, ladies and gentlemen. But you are asking me, and I am telling you how we did it.

**Question:**
With regard to the site profile – which I take it is the reason we're here – is it a good one? Especially if we say that it is similar with respect to Mallinckrodt's site profile?

***Bill Murray:***
The only thing I can tell you about that – unfortunately, I'm the only health physicist here—but what I can tell you is in one of the slides. Based on the comments that were made at our last meeting, they revised the air concentration. They put it into a lognormal distribution when they run the dose reconstruction so they end up with a factor of 14 to describe the uncertainty. One of the things we have to do is describe how certain we are that those are the right numbers. That is where the distribution comes in (the normal distribution, the bell-shaped curve). When the distribution is put into the dose reconstruction, the maximum number that is used now for the uncertainty is a factor of about 14 over what it used to be. This makes the doses higher, which is much more favorable to the claimant. Whether or not there will be enough dose in the organ where the cancer is, to get the probability of causation (the likelihood that radiation caused the cancer) – that will depend on the person and the dose. We are trying to be claimant-favorable based on the comments you had.

**Question:**
I've been reading your drafts, and reading the reports, and getting this information. You're a health physicist – there are levels of radioactivity which are considered to be hazardous to the human being. Maybe we may walk through the same area, and you have lung cancer and I don't, but we're both exposed to the same hazard. It doesn't matter to me that I didn't get cancer, it matters to me that the government I worked for didn't tell me about it – and Linde did work for the government. In the 1940s, the government gave you a plaque and a little gold pin for working on the Manhattan Project. My grandfather, who died of lung cancer, was given one. To me it was always the government – not Linde – that exposed us to this health hazard. It makes no difference to me who got cancer and who didn't. They shouldn't question it. The thing I asked the health physicist who was at our last meeting was, "What dose is a hazard to your health, and do we have that present here at Linde today?" If we do have that factor of 14 higher than it was before, then that says that we're exposed to that level of radiation that can be hazardous to our health. Is it hazardous? We don't know. We do know that we have a higher rate of cancer than anyone else in the area. The government created this hazard. I chose to work at Linde, but the government gave me that little gift. Whether it will affect my kids, I don't know. Where do we go from here? If your cancer was caused by the radiation – who knows? God only knows.

**Question:**
If the Linde site is still contaminated, why can't someone go in and take tests? I understand that Linde won't let anyone on their property. Doesn't anyone in a federal agency have the power to go in and do that?

***Laurie Ishak:***
I'm not familiar with the regulatory policies at nuclear facilities.

**Comment:**
At the last meeting, I told Dave Allen that what we're doing here is all a waste. It's very nice, I'm glad you're doing it. But let's you and I and our health physicist here go to the Linde property with a Geiger counter and see what's there today. I see nothing in your report about the wells that were tested every year, both in back and in front of Building 39. The wells are still

there, but the building is gone. Why is Linde or the government paying millions of dollars to demolish these buildings, removing them carefully from the face of the earth? The place is hot.

***Laurie Ishak:***
That is beyond the scope of the compensation program. We have to go by the law.

**Question:**
But wouldn't that affect the Profile? Do you want to do a site survey for a Special Exposure Cohort?

**Comment:**
I would like to share something with you. Your attorney is here, he can do that. I would suggest that he contact the State Attorney General. The State Attorney General could come in and declare Eminent Domain on that area and possibly bring the State EPA in to test that area. That would supercede anything that Linde says, but you would have to have your attorney contact the State Attorney General to do that. That way you would know what samples you have and you could confront the government with it.

**Comment:**
I supervised the testing facilities at Union Carbide for almost 20 years. I had one of the few Geiger counters on the properties. I'll take you today and show you hot spots.

I was very confused at the last meeting and I saw that the report you had back there had all those red markings on it. It confused me because it had nothing to do with the site survey. All it is, is me telling you what we saw and what we did and you absorbing all that and saying that was good. Let's go on the property and do a site survey. What's the dictionary definition of a site survey? It doesn't mean showing how big a building is. The pictures in here show you how big Building 14 was and how big Building 30 was. Who cares? Every employee who walked through that building was exposed. That's what you're looking for – exposure. Quite a few of them didn't walk out.

**Comment:**
You've got our site profile (Bethlehem Steel). They didn't talk to one of the site experts for approximately 16 months after we had the site profile. They say they talked to claimants. They talked to people like *(survivor's name withheld)* who never worked a day at the plant. Her husband did. They're asking her questions like "What happened? What did he do down there?" Sixteen months after our site profile was out and our claims were being denied – and we're still being denied – they have never used any worker input… or visited the site. And the documentation that goes into the Technical Basis Document is supposed to be what they use for dose reconstructions. How can you reconstruct something when nobody cared (enough to get the information)? Bill Murray and I met approximately a year ago (at a meeting) with guys who worked there (at Bethlehem Steel), and we told him what the conditions were in the plant.

**Comment:**
NIOSH wasn't interested in that. They sat there and completely ignored these people when the gentlemen who worked at the plant were telling their stories. NIOSH said "Trust us. We've got the profile all done." And they were completely oblivious to what these people said.

**Comment:**
The company that audited NIOSH said they never used any of the information that was brought out at that meeting. I called all these people at Bill Murray's request to get that meeting together. Bill arranged for a place and everybody – even elderly people who worked in the early days who had trouble walking – came out. And the auditors said they never used a bit of that information. So what good does it do for you to come here? What good are all those records that *(name withheld)* brought in with a truck if they're not going to put it to use? They definitely do not know what went on at that steel plant. I'm sure it's the same thing at Linde Air. I just discovered some things that happened that I am going to notify them about that will give NIOSH more information about what went on at Bethlehem steel. The site profile was all done out of an armchair in Cincinnati. I don't know how much money they spent, but they didn't send one person up here – until Bill came up – to talk to the people who worked at Bethlehem Steel about what went on there. That's a shame. And then to deny people's claims and say they did claimant interviews – they took them. When I had my interview and my appeal hearing, the man pointed to a number and said "You've got 3.29 and your claim has been denied. You won't change that number and you're not going to get it at all." That was in my appeal. It's a waste of time and money for an appeal because they don't do anything with it.

**Comment:**
They also did things like using Simonds Saw as a surrogate for the site profile for Bethlehem Steel. There is no correlation, really, between the two sites. I tried to get information at a previous meeting about how many facilities they were using surrogates to write the profiles. I could never get a straight answer from anyone at NIOSH. They talk in circles.

**Comment:**
What you have to remember is that the way they put this piece of evidence together is to develop a matrix. They claim that with this matrix they can put together an "accurate account of the site." It's not an accurate account. They're just filling in the numbers. Any scientist worth his salt is looking for results of 99-point-something-something to put his name on the document because it means his science is good. Using this matrix is bad science (because the result is a low percentage). The matrix they have developed is not an accurate account of the site.

**Comment:**
I'd like to read a document that most of you are familiar with titled *The Federal Connection: The History of the U.S. Military Involvement in the Toxic Contamination of the Love Canal and the Niagara Frontier Region, January 29, 1981, an Interim Report to New York State Speaker Stanley Fink, New York State Assembly on Toxic Substances, page 125:*

> Decontamination Required at Linde Plant
>
> The site of the MED-Linde "Ceramics Plant" was itself theoretically decontaminated in June, 1949, at a cost of $53,000, prior to sale of the facility to Linde. *(Speaker interjects: Building 14 cost well over $20 million, and more with all the rehabilitation that was done before they decided to tear it down. The report goes on…)* However, a DOE radiological survey performed in 1976 disclosed that surface contamination at two of the five Ceramics Plant buildings remained "quite extensive" and was also present in two

> other buildings. DOE advised Linde that the contamination might represent a "potential radiation safety problem to personnel conducting maintenance or construction activities directly involving these surfaces." DOE has estimated that remedial action, if it is required, would involve the removal of 72,000 cubic yards of soil and 19,000 cubic yards of building material. *(Speaker interjects: … and more, with all the rehab they did before they decided to tear it down.)*

That's a joke, there's fifty times more than that now – and they are not done. Don't sit here … NIOSH, another joke, a cruel joke on our members and the widows of these people – my members… his members – who are dying today … a cruel joke! They know that Linde was contaminated and they know how much it was contaminated. And our friend Dr. Dooley *(referring to Dr. David Dooley)*… we know about him. He's not for the workers. He's to protect the administration. That's what it's all about – to protect the administration because they want nuclear power.

**Question** *(from another participant, directed to the speaker)***:**
Who's Dr. Dooley?

**Comment** *(previous speaker)***:**
Dr. Dooley is the representative who got $50 million to do these dose reconstructions. That's MJW on your form at the top at Oak Ridge. It's a joke, people.

**Question:**
I'm looking at a copy of a letter dated May 15, 2003. Maybe you people from NIOSH can help me with who Dr. John Howard is?

***Laurie Ishak:***
Dr. Howard is the Director of the National Institute for Occupational Safety and Health.

**Question:**
And who is Larry Elliott?

***Laurie Ishak:***
He is the Director of OCAS, the Office of Compensation Analysis and Support.

**Comment:**
OK. This is a letter from Congress to these people:

> Dear Gentlemen:
>
> We are writing to advise NIOSH regarding the formatting of the contents of the *Final Report on Residual Contamination in Atomic Energy Weapons Employer Facilities*. (That's AWE.) This formatting would be of most assistance to Congress.

It just goes on like that, but there's something in here that says:

> In Section 3151 (of the National Defense Authorization Act for Fiscal Year 2002, Improvements to Energy Employees Occupational Illness Compensation Act Program):

The National Institute for Occupational Safety and Health, with the cooperation of the Department of Energy and the Department of Labor, carry out a study on the following matters:

(A) Whether or not significant contamination remained in any atomic weapons facility or facility of a beryllium vendor after such facility discontinued activities related to the production of nuclear weapons.

***Laurie Ishak:***
That report is on our website, but we are making revisions to it. The original report from 2003 is on the website, and the final report will be out in December 2006.

**Comment:**
Well, it was due in 2003.

***Laurie Ishak:***
Right, that version is on our website and Congress has asked us to look at it again…

**Comment** *(speaker continues to read document)***:**
And also there's

(B) If so, whether or not such contamination could have caused or substantially contributed to the cancer of a covered employee with cancer or a covered beryllium illness, as the case may be.

Now, to me, this was a directive to NIOSH. I assume, when they made this report, you studied the facilities.

***Laurie Ishak:***
I don't know exactly how they did the report. Yes, I assume they did.

**Comment:**
Well, we assume…

***Laurie Ishak:***
Yes, I assume they did.

**Comment:**
Well, we assume… that's what the report was.

***Laurie Ishak:***
The report is 300 plus pages. It's pretty thorough…

**Comment:**
Three hundred… well, listen – I got room for 300 more. The thing is… NIOSH was assigned a job. Maybe… You're a health physicist. I'm a testing nut. When you tell me to test something, I won't do it from my office. You give me a sample and I'll give you the results. I took a lot of physics. Unfortunately, I took nuclear physics and not health physics. To me, when Congress – the government – says to an established organization "Do this…" Is this the final site survey?

***Bill Murray:***
No, those are the minutes (from the last meeting). The site profile is the other one.

**Comment:**
OK. Anyway, what did we find?

***Laurie Ishak:***
The Linde facility…

**Comment:**
You're a health physicist – tell me if the Linde facility is contaminated today. Thank you very much. That's all I want to know. Is it contaminated? If not, why are they taking buildings down and burying them in Carlsbad? They're burying the facility. Dennis Conroy wrote you a letter denying… You contacted him to do a site survey.

***Laurie Ishak:***
Actually I did.

**Comment:**
Dennis is a friend of mine.

**Comment:**
Mine, too.

**Comment:**
I've known Dennis for many years. We were both on staff there. But the thing is, they wouldn't let him go on the property because many of the buildings are gone. By the time we get around to it, they'll all be gone and there will be some nice green grass growing there. They can't hide everything. There are a few of us who know where the skeletons are buried. That's why I told Dave Allen "You and I, let's go for a walk and we'll see if that place is dirty." And then I don't care how much they hide – they're not going to hide it all.

***Mark Lewis:***
It sounds like some of the things you want to get done will have to be done locally, yourselves – or maybe statewide.

**Comment:**
We shouldn't have to do it. We should be able to depend on the government to do it. The frustrating part of it is we're doing this and it has to be done on a state level, but this is a national government program. It makes no sense to place the burden back on us.

***Mark Lewis:***
I know it's frustrating for you. Maybe this gentleman can put some pressure on the site.

***Colby Hagen:***
Absolutely…

**Comment:**
I don't know who this gentleman is.

***Colby Hagen:***
I'm Colby Hagen, here from Representative Slaughter's office.

**Comment:**
Very good, I'm glad she's got someone here.

**Comment:**
Tell Representative Slaughter that she's done a terrific job. She will be well remembered by all of us. And I mean that. I'm speaking from the Steelworkers and we certainly appreciate her help.

***Colby Hagen:***
I will, absolutely. This is definitely a concern of hers. We appreciate that. Thank you.

***Laurie Ishak:***
The site profile discusses the residual contamination at Linde.

***Mark Lewis:***
Some of the comments you made at the last meeting are incorporated into that, too.

**Comment:**
I appreciate that. You talked about Building 30, I don't know if it went into quite the extent that we discussed because it wasn't a cleanup operation. It was a renovation of the building.

***Bill Murray:***
That's right – absolutely.

**Comment:**
There is a difference between a cleanup operation and renovating the building. When they were renovating the building, they weren't cleaning up, and everything was flying around. I wondered if you took it in the proper context. I do appreciate the fact that you did mention that.

***Bill Murray:***
On page 72, the second paragraph from the bottom, it says "Renovations occurred in the 1960s that could have influenced air concentration. Actual details are not available." But they made some assumptions based on what you said at the last meeting.

**Comment:**
In 1960, Building 14 was completely renovated. They put offices where the manufacturing facilities were. After that date…

**Comment:**
I have another document… Volume II…

***Bill Murray:***
Can we finish this point?

***Response:***
After that date, when the renovation was complete, they realized that they didn't take into consideration what was up in the rafters. If a beam fell and shook the building, it snowed radioactive dust. That's why that building is no longer there. After they renovated it, they had to knock it down and they couldn't put it anywhere on the property. The dirt that was taken out of

there had to be put somewhere else. They put some of the dirt in front of Building 10. Have you driven by, have you ever been there?

***Bill Murray:***
No.

***Response:***
What a shame! It's a beautiful place. *(Laughter)* They bought the golf course across the street, and they put parks in there. They put some of the dirt from Building 14 to fill it in. Now there's a lake there. The parking lot by Building 70, they took some of the dirt out from the back of Building 31 and blacktopped it. They had to rip it all out because the ground was contaminated. The little stream that runs through the golf course is now contaminated. We checked the edges of the stream and it glows. This is the exposure we had. I put forty years in with that company – and it was a good company to work for. But they did give me a few gifts. Some were wanted, and some weren't. What is being done today to overcome that?

***Mark Lewis:***
Does the Army Corps of Engineers have oversight now?

***Response:***
Bechtel was hired. In your draft, there's a report from Bechtel. But they didn't tell you everything. Some of the people that worked for Bechtel were friends of mine. Bechtel refused to go through with the renovations. They backed out (of the contract) because the company would not comply with their stringent requirements. The Corps of Engineers was brought in. What are they going to do? They're under orders. Contact Bechtel and see what their report to Linde says. They started it – they hired Local 210 to go in and do it. They fired them all.

**Comment:**
Mr. Murray – let me ask you a question. Since we're talking about the Linde site, we won't even discuss the Bethlehem Steel site. We'll talk about the Linde site. You have made this huge site profile here. The question I have for you as a scientist who is grounded in having everything that you need as a scientific person. You have not, nor has anyone from ORAU or NIOSH, been on that site. You have not – not one person from your organization and NIOSH – I have a problem with that because the pool for uranium scientists in the country is so small you either work for NIOSH or you work for ORAU. Now, when you get tired of working with the government, you go to work for ORAU. When ORAU doesn't treat you right, you go to work for NIOSH. So the pool is very small, so consequently, there has not been one person from either organization who has set foot on any of these contaminated places. Now as a scientist whose scientific reputation is on the line, how can you in good science come up with any kind of document when you have not done the necessary scientific work to get the right things done? How can you, in good scientific conscience, even try to present it? Because you know you would not put your name on such faulty science. How can you run a lab test if you don't have a rat? How can you run a lab test if you don't have a frog? You haven't gone to get the frog or the rat. You have done a theory thing. You have done what Mr. Einstein did – but then he had to prove his theory. You are dealing with people's lives with this information and none of it is good science. We know that. That's how come you can look at me. You can have a good matrix because you have made a matrix that can

fit the form that you want. But the science of what you're doing is faulty and it won't fly. Scientists around the world would laugh at you if you presented this stuff to them because the thing that you really want to measure, you have not measured. And that's why you can't answer me because you know I'm telling you the truth. Now the thing that you can put forth with the matrix you have developed – you can talk about that but you really can't talk about the Linde site, because you haven't been on the Linde site. You haven't tested the rat that is at Linde. This is something that needs to be on the record – you haven't tested the rat that's at Bethlehem Steel. And that's why you can't answer. That's why your name is not on here – because you say "Hey, I work for the company. I'll come out and push it." But you're not signing this off because your scientific reputation is on the line. And that's why we know… I've been around, I went to college – I studied this. So you know I'm telling the truth, that's why you can't respond.

***Mark Lewis:***
Do you think that if the Congresswoman would request that someone from NIOSH would go on site – do you think that would happen?

***Response:***
It can't. I've spoken with certain individuals – I won't mention their names – who have dealt with Hooker… who have dealt with Hooker Chemical. And the problem that we have, you see… We don't want to go that route, because you see, *(participant name withheld)* here… he has cancer. If we go in, do eminent domain, and say "This area is a toxic waste site," they can wait him out and he'll die waiting for them to do that mess. Because the government… Because what we need to do… What you really need to do… The Attorney General of the State of New York can declare eminent domain on anybody's property. He could go in and do it, as an independent person. So I'm throwing this out to you because I've done the research…, I'll tell you a certain person whose initials are L.G. who knows something about Hooker Chemical and the Love Canal site. I have her personal number. She's in charge of a big complex down in Virginia now. That is a person who has given me some direction. But, you see, I've got to worry about the people I'm serving now. It's amazing that I am not a scientist and I have a scientist who is speechless because he knows he's not putting his name on this. He's not putting his scientific reputation on the line behind this nonsense. That's where we are. This is where we are. So, as a group, I would share with Linde… Linde, you need to get with Bethlehem Steel and confront them as a united fight, because, you see, you are trying to fight them alone… Yeah, you got your constituency. But see, your constituency is fighting the same fight. Because we've been over this. So as I sit here, sometimes I have to learn to be… you know… you've got to get there. I can't take you where we are – ready to travel. But I'm just giving you some advice. These guys are giving you the dance we heard over a year ago.

**Comment:**
Who are "these guys"? These guys here?

***Response:***
NIOSH.

**Question:**
Mr. Murray, are you going to let them talk about NIOSH that way? *(Laughter)*

***Response:***
They just had a day off. Like I told Bill a year ago…

***Response:***
We met with Mr. Murray last year. We traveled this horse… So I'm a year down the road from where you are now. So I'm telling you the way to fight this thing. You need to fight this thing. See, since you've invested in a lawyer, you need to really put him to work. You need to have him call the State Attorney General… *(Laughter)*

**Comment:**
I just want you to know that his salary is… it's like this (holds up thumb and forefinger pressed together) right now.

***Response:***
I know… he's being presented with a compensation case. I'm where you are. I called lawyers. But who wants to take a compensation case? The government is very shrewd. They didn't make it an injury case – they made it compensation. So the only thing he can get is 3%.

**Comment:**
I want to point out that our attorney is here as a friend of the court. *(Laughter)*

***Response:***
I understand. He has to be to even think about this. The government's been shrewd in every step of the way.

**Comment:**
I have a document I'd like to read here. The New York State Assembly (Federal Connection, this is Volume II)… This secret letter has been declassified.

> Army Service Forces
> United States Engineer Office, Manhattan District
> Oak Ridge, Tennessee
>
> 4 June 1945
> Subject: Maximum Allowable Concentration of Insoluble T Compounds in Factory Air
>
> To: The Area Engineer, Madison Square Area, New York, N.Y.
>
> 1. This office is in receipt of a special report on a maximum allowable concentration of certain T compounds in factory air, submitted by Dr. Carl Voegtlin and Dr. Harold Hodge on 21 February 1945. This report recommends that the maximum allowable concentration for chronic exposure to high-grade ore, $T_3O_8$, $TO_2$, and $TF_4$ be raised from 150 micrograms per cubic meter to 500 micrograms per cubic meter.
> 2. This recommendation is based on the results of exposure of animals to these substances, and careful observation of a large group of persons working in industry with these materials during the past two years.

3. Therefore, in the opinion of this office, the maximum allowable concentration for exposure to high-grade ore, $T_3O_8$, $TO_2$, and $TF_4$, should be increased to 500 micrograms per cubic meter. In view of the extreme difficulty in maintaining concentrations of 150 micrograms per cubic meter in industry, it is felt that such a change will be of definite benefit in expediting the war effort.

4. It is recommended that this change in the maximum allowable concentration be transmitted to the contractors under your supervision.

*(Speaker interjects: "That's Union Carbide…")*

5. It is requested that this office be notified by indorsement of the action taken upon this recommendation.

For the District Engineer:

Stafford L. Warren
Colonel, M.C.
Chief, Medical Section

The point is there, they did a two year study on animals and on humans of what the T substance – and we all know what T is – and that we assume that all this dirt and dust… Now do we assume that all this happened? Yes, I do, because I know two guys who cleaned the ventilators when we ripped them off of Building 30 – the five-foot roof ventilators. And before we could put them in the scrap pile, they had to bring them into our maintenance shop, in a closed area, with just coveralls and a dust mask – not a breathing mask, a dust mask – and wire brush them until they came in and read them with a meter.

***Mark Lewis:***
Was that cited in the profile? The document?

***Response:***
This document, the Federal Connection? Yes, that's in there. It should be. I thought I gave it to them.

**Comment:**
I'm sure you did.

***Mark Lewis:***
Do you have any objection to Mr. Murray going ahead with his presentation? After he finishes, we can stay and continue with this discussion.

***Response:***
Mark, you had talked to me about that before when we talked about this meeting. I think it's only a courtesy to do that. Absolutely, not *(no objection).*

**Comment:**
You've got to earn your money, Bill. *(Laughter and inaudible comments.)*

***Bill Murray:***
Can I respond?

**Question:**
I'm sorry. Go ahead. You want to respond?

***Bill Murray:***
Yes. I know some of the people that were in that memo, believe it or not. The standard for T, which is uranium, was derived back in the 1940s, 1943, and before that. It was done by Harold Hodge, who was a world reknowned pharmacologist at the University of Rochester. What they did was… They had no idea what the toxic effects of uranium were. And, certainly, we know a lot about that. I think that all of you acknowledge that. Back then, we knew very little about uranium…

**Question:**
What year was that?

***Bill Murray:***
1943-47, with the MED (Manhattan Engineer District). What they did was base that standard of 150 milligrams per cubic meter on the chemical toxicity, because they knew nothing about the radiological toxicity at the time. Actually, if you look at uranium-238, which is the predominant form that you find in nature, the standard even today is based on chemical toxicity, not on radiologic toxicity, because it doesn't give off enough radiation. It could, but it will kill you from the chemical toxicity first. It's an acute effect. It's an effect on the kidneys. Uranium, like many heavy metals, will shut down the kidneys. It wasn't a cancer effect. It was an effect on the kidneys. The standard never did go – as far as I know – from 150 to 500, regardless of what that memo says. It stayed at 150 throughout the war, and then it was lowered to 50 or lower. But they did it after the war. The reason that they probably waited, in all honesty, was that they needed uranium for the bombs. So they were willing to take some additional risks to protect our freedom.

**Comment:**
Sacrificial lambs… sure.

***Bill Murray:***
So were the troops. But I don't believe that ever went into effect. I know what it was based on. I went to school at that university, so I know some of the people. But most of the work on uranium and the toxicity of uranium was done at the University of Rochester by Harold Hodge. There was another man there who I knew personally – Herbert Stockinger, who was one of the students. And there were people there who had worked in the Manhattan Engineer District when I went to school there in the 1960s.

**Question:**
So what you're talking about… What we're talking about here is this key material is being exhausted out of five-foot ventilators on the roof of Building 30 and on the roof of Building 38. These materials… What stops them? A chain link fence that separated the plant from the plant that was out here making air separation. I mean… a chain fence stopped that, right? It didn't stop it. It is a heavy metal, is it not?

***Bill Murray:***
Absolutely.

**Question:**
It's a heavy particle that will fall to the ground. Right?

***Bill Murray:***
Probably within a couple hundred feet to maybe a hundred yards.

**Question:**
Given the direction of the wind at any given time and it covers the whole plant. Doesn't it?

***Bill Murray:***
It could. Sure.

**Question:**
And the area around it?

***Bill Murray:***
That's why we made this assumption in here *(referring to the site profile)*. Regardless of where the person worked, they are going to be assigned this exposure for residual contamination.

**Comment:**
I'm not beating up on you. I'm just saying… Is that true what happened? Now, what's not added into there is the African one *(referring to pitchblende)*. There's another element in that African ore – radon… Very high content in that African ore. There's absolutely no question. If you don't believe me, go over to the Lake Ontario Ordnance Works, where it's sitting there today from Linde.

***Bill Murray:***
We're all exposed to radon.

**Comment:**
And that does not mention anything about the radium (that was released) as the ore was being crushed. Because the African ore that I got was 20% uranium, approximately. And all the rest – huge quantities of radium – it's still buried at the Lake Ontario Ordnance Works.

***Bill Murray:***
It talks about that in here. The fact that there were pre-processed ores where some of the daughter products (the decay products) were processed out, and that there were some that went through… and I'm not familiar with all the details.

**Question:**
And did it also talk about the processing of material that came in preprocessed from Mallinckrodt?

***Bill Murray:***
I believe all that is in there.

**Question:**
Everything that came from Mallinckrodt – preprocessed?

***Mark Lewis:***
This is one of the reasons I wanted you to look at the Mallinckrodt petition on the website to see the similarities. You need to do that.

**Comment:**
The ball's in our park.

***Mark Lewis:***
It is. I told you that last time I was here. It is.

**Question:**
Mr. Murray, you said that uranium really affects the kidneys in the body. Exactly what does the kidney do in the body? What is its major function?

***Bill Murray:***
It's to process waste – excrete waste.

**Question:**
It's to process waste. So what I'm saying to you… If the kidney would process waste and the uranium would be a waste in the body… If the kidney shut down, and you could not process the waste, that means that you have a waste build-up. If you have a waste build-up, wouldn't it mean that you have higher levels of toxic foreign matter in your body totally? I mean… that would be the key thing to me in everything that we talk about. Since their kidneys were being attacked primarily by the uranium, wouldn't that mean that the uranium could not be processed out of their bodies?

***Bill Murray:***
But that's only the chemical toxicity, not the radiation toxicity.

**Question:**
But the chemical components of uranium attack… are hazardous to the body naturally – just by the chemical components. Am I correct?

***Bill Murray:***
Well, it doesn't matter whether it's radioactive or not…

**Question:**
So, we know that uranium is four times heavier than iron, so consequently when you (ORAU and NIOSH) say that they could not have pancreas cancer, they couldn't have cancer of the testicles… that wouldn't be the thing. If these materials were not processed out of the body, wouldn't they settle by the weight in the lower extremities?

***Bill Murray:***
No.

**Question:**
It could be processed out of the body?

***Bill Murray:***
Sure. In fact, some types of uranium are soluble, which means it mixes easily with water, is processed through the body and excreted by the kidneys. It can be excreted so quickly that, if you take a bioassay sample at the beginning of every month, if a person has exposure the second day of that month and it is soluble uranium, the first of next month you'll never see it. Because it all would have been excreted by then.

**Question:**
But we're not talking about the chemical form… We're not talking about active, or maybe something that has been charged up with beta rays or gamma rays…

***Bill Murray:***
That doesn't matter. Because what determines where an element goes in your body are its chemical properties.

**Question:**
So, consequently – I'm going somewhere here – so that would mean that the amount of dosage would be the key factor… Am I correct?

***Bill Murray:***
The radiation dose is the only factor considered for EEOICPA cancer claims. Any harmful effects from the chemical toxicity are not considered.

***At this point, a 10 minute break was requested.***

Mr. Lewis turned the meeting over to Bill Murray for the presentation of the site profile.

Mr. Murray stated that the purpose of the meeting was to present the revisions made to the site profile that had been brought about by worker input at the previous Worker Outreach meeting on April 18, 2005. Changes had also been made to correct errors that had been found by reviewers. He said that the site profile team was unable to ascertain from any Linde document whether the strontium used in the Linde facility was radioactive, or if it was a process material or from a sealed source. A participant stated that there had been strontium-90 ($^{90}$Sr). Mr. Murray said that since strontium-90 is a beta emitter, primarily absorbed by the skin, it would be accounted for in the beta dose. He said that the uranium exposures used would be sufficiently large to account for small amounts of radioactive strontium, as discussed on page 22 of the site profile.

Mr. Murray said that information had been added about the renovation and remediation:

- Building 14 was contaminated and later surveys indicated that residual contamination remained after the Atomic Energy Commission (AEC) contract ended in 1949. (p. 25)
- Contamination was found in Building 57 (p. 26)
- Building 30 renovations in the 1960s could have influenced air concentrations. (p. 72)

Mr. Murray explained that due to new information, the following changes were made to the site profile:

- A maximum value of air concentration is used to estimate intakes during the residual exposure period.
- A factor of 14 is used to describe the uncertainty in the elevated intakes during Building 30 renovations.
- For doses to specific organs, a lognormal distribution is used with a geometric standard deviation (GSD) of 5. (p. 74)

Mr. Murray said that since the team did not have information about what buildings individuals worked in, it is assumed that all workers were exposed at the highest levels. This maximizes the

worker's dose and increases the probability of causation. No adjustments were made to the dose to account for safety gear (including respirators).

**Comment:**
Very few people at Linde were badged.

***Bill Murray:***
In my presentation, I have pointed out that there were limited badge data for beta and gamma exposure. We talked about that the last time *(in April)*. We don't assume that we're going to get the badge data. This is one of the big differences between the AWE and DOE sites. The government usually did not own the AWE sites in the early days of the program. Records for monitoring are not always available, and assumptions must be made in the workers' favor. The dosimetry practices were not the same in the early days. Production was the bottom line. Significant changes have been made to this document. We tried to address the technical issues you brought up at the last meeting. We are always looking for additional information.

In response to the comment that we haven't done anything with the Site Profile for Bethlehem Steel – there have been revisions made to the exposure matrix based on some of the comments made during the worker outreach meetings.

**Comment:**
In Building 31, the air lines were all contaminated. I don't think that was reflected at all.

***Bill Murray:***
I don't remember hearing that.

**Comment:**
… Building 31, the air lines were contaminated.

**Comment:**
That was after DOE decontaminated the building. They went in again in the 1980s. They didn't want to convert the building to offices until they checked it out again and that's when they found more radiation in the air lines. That's where maintenance was, that's where the molecular sieves were.

Another comment on Building 30… all of Building 30 was painted, because I painted part of it. Every single part was painted, including all the unit heaters, piping – everything was painted. In 1995, after everything was cleaned out of the building, all the equipment completely removed, it was left empty. An employee took a manlift – took the DOE – and went up on the beams and did swipe tests and Geiger counter readings, and they all came back positive. The most important part was that this wipe test was done on unit heaters. A unit heater is a steam heater that hangs over the door and when the door opens up, the unit heater comes on in the winter so you don't freeze to death when the doors come open. Those unit heaters were contaminated – friable material. The question remains… Production was out of there as far as nuclear production was involved. The building was completely taken – by contractors and myself and some other guys. Where did that friable material come from? We're talking years later – years later – I went up there and wiped that off and there it was. And the unit heaters, when they blasted that out, it went all through the air in Building 30. It didn't matter about the people working there. That building

was utilized by everyone. That was the Stores area… shipping and receiving… carpentry shop… everything. Friable material was found in 1995 by the Department of Energy.

**Question:**
Where were the wells you were talking about earlier?

***Response:***
The wells were under Building 39, and every year the DEC would come in and take drillings (samples) to see if the water leached. My office was sitting right on it. That was Building 39, right next to 38, and next to 58. They're all gone now. All the buildings I supervised are all gone now.

**Question:**
What about the wells?

***Response:***
I don't think they've dug down that far. Yes, the wells are still there, along with a whole bunch of other things.

**Question:**
What about Yard 70?

***Response:***
Yeah, they've got 'em out there. Chlorine was out there.

***Mark Lewis:***
They've got wells in Yard 70?

***Response:***
No… Yard 70, in the 1940s was a quarry. It was located right across the street from the garage door at Building 30. I was there as a boy because my grandfather worked there. And he showed me… we used to hunt pheasant there and I got to know that area as a teenager. There was a quarry and they'd come out of Building 31 with wheelbarrows and dumped them right into the quarry. But that later became a storage area, after it was filled in. Building 57 was built over it, and now they've knocked that down.

***Bill Murray:***
Did they remove the material?

***Response:***
It was a landfill. They just built stuff on top of it.

***Bill Murray:***
Did they pour liquid waste into the quarry?

***Response:***
No. There were all kinds of waste. Equipment… there was all kinds of stuff. Believe me.

***Mark Lewis:***
Like bulldozers and tractors and trucks?

***Response:***
No, not heavy equipment. I'm talking about laboratory equipment – autoclaves… if it got contaminated, they'd deep six it.

***Mark Lewis:***
What about protective clothing – contaminated clothing?

***Response:***
God only knows. I used to go down there as a youngster. The workers who put it there are all dead.

***Mark Lewis:***
But you know it's there.

***Response:***
I know it's there. I used to go hunting there…

***Mark Lewis:***
If the two of you could make an affidavit, that's admissible evidence for the profile.

***Response:***
I used to put out a wire noose and a stake, and that's how we'd catch our pheasants. Rabbits, pheasants…

***As the conversation continues, participants are looking at a site map of Linde Ceramics Plant in the Site Description section of the site profile.***

**Question:**
What about 14?

***Response:***
(Building) 14? No, 30 and 31 were the two hottest buildings… and 38. Buildings 31 and 38 had the process areas. That was next door to me. I was in 39. That big water tank that stuck out in the back of Building 38 came almost right up to the office. Then they had Building 57, the little building. It was as hot as could be, and it was built after the Manhattan Project. That building was so hot, no one could ever work in there. But they stored food in there from…

***Response:***
You mean 37.

***Response:***
Yeah, 37. I can tell you the classification of the people that worked in those buildings. Building 31 was maintenance, and it was the molecular sibs (a chemical operation), and it was a contaminated building. Maybe 50 or 60 people worked there. In the Stores Department, there were about 130 – and that's only hourly… another 30 salaried. Also, people who worked in the Fab Shop in Building 30 that they called a tank shop, where they did grinding and welding. So fabricators, welders, metalsmiths, everybody, practically every classification at one time or another worked in those buildings. Between maintenance, chemical operators, stores, fabricators – probably ¾ of the Linde workforce worked in those contaminated buildings. Not just walking through, but actually assigned to work there at one time or another.

***Mark Lewis:***
What building… 37? Building 37 is on page 13. I'd like for you all to look at the profile and add to it. We need the rest of the story.

***Response:***
I can get you all the classifications that were there – and it would say what they worked.

***Mark Lewis:***
(Building) 38 is on page 16, but read it… you're the experts…

***Response:***
The Corps of Engineers tore down Building 67. The Corps of Engineers also tore down 58.

***Response:***
On page 14, I got Building 30-- the Heatherton Report, 1950.

***Mark Lewis:***
On page 14, I have Building 31 and Building 37.

**Question:**
Do you have 58?

***Mark Lewis:***
Take a look at the profile, let's look and see what it says. Let's see if we do have 58.

***Response:***
(Building) 58 was the Press Lab with the bomb stuff in it, so when they took the cylinders in there for testing, it would blow all over the whole plant. Building 67 also.

***Mark Lewis:***
I don't see anything past Building 38.

***Response:***
There's no Building 67.

**Question:**
Are we looking at the same thing?

***Response:***
Page 11… This is the profile. I'm naming the buildings for you. I was from Maintenance, so I know exactly where they were. Page 13 is showing the layout of the buildings.

***Response:***
On page 13, I've got Linde Ceramics and Tonawanda Laboratory Buildings.

***Mark Lewis:***
You need to look at the profile and say, "This is the profile, and this is what's wrong with it, or you got it."

***Response:***
You see where 39 is? Above there is Building 30. Right next to it, there's a little 37 in there. You see the little building there – almost attached? Maintenance took that down. It's down. It's gone.

***Mark Lewis:***
It says, "Building 37 is a small appendage to Building 39. It was used for Step 3. However, no details of this use have been found, and its small size indicates a most minor role." Is that accurate or not?

***Response:***
It was a machine shop for a small time. But they stored stuff in there.

***Response:***
They stored stuff for the vending machines in there.

**Comment:**
Do you see Building 38? On the right hand side, there's a little appendage. That was a tank that stuck to the building and it came out almost to Building 39. That was a water tank and they used to cycle the water through the reactors. When they were cleaning up, they used the water from the wells.

***Mark Lewis:***
So the buildings are gone, but the wells are still there?

***Response:***
The wells are still there. (Building) 38 is gone, 39 is gone…

***Response:***
(Building) 67 is gone. The wells were waste water.

***Response:***
Right next to Building 39, you see Area 4 underneath it – just a blank building. That was an explosion building. The whole back end of the building was covered with explosion matter. That's 58. Right in the space between 58 and that long building on the right-hand side… right there… there was Building 59, which was where the strontium-90 was stored.

***Mark Lewis:***
That's very important.

***Response:***
The strontium-90 was… we had the fingers – the arms – that controlled through the glass…

***Mark Lewis:***
You mean robotic? Where was this?

***Response:***
Yeah. There were 2-foot-thick concrete doors on railroad tracks. You see that Roman numeral IV… above and to the right of that. (Building) 57 is that long building up on top. See where the G is on 31, this is the mainline coming through here. On the opposite side of the tracks, it's all contaminated. They're over there cleaning it up now.

***Response:***
That has nothing to do with these buildings.

***Mark Lewis:***
Even though this is a technical document, for technical people, you are the only ones who are able to tell us where these buildings were and what is inside of them. This is the input that we need so badly from you. If we went to the site, you could tell us there was a building there. But all the information that is inside your heads… in your memories – that's what we need. It's useful knowledge.

***Response:***
You see where it says Building 37? Way up on the top… To the right of that is Yard 70, where they stored all kinds of materials.

***Mark Lewis:***
Don't you find it interesting that these things aren't mentioned in this profile? This is a living document…

***Response:***
There are aerial photographs available. I can get the whole thing. What I've been trying to get is one from the 1940s.

***Mark Lewis:***
What they did in the plant, though – that's what's inside your head, and that's what we need.

***Response:***
The strontium-90, every once in a while, we would do a demonstration on the power of strontium-90. We'd put an egg in a frying pan in the chamber and put everyone on the other side of a glass wall and take the cover off, pick up the strontium-90, put it down, and the eggs were cooked. That fast. Strontium-90 is powerful. We had cobalt-60, too. They used that for x rays.

***Mark Lewis:***
Is cobalt-60 mentioned in here? If it's not… You see, this is a living document. If something comes to light that could be relevant to the dose reconstruction, the document can be revised – at any time. If you take it home and you think of something that would be useful, you just have to let us know about it.

***Response:***
I don't know if they mentioned cobalt-60. The guy who used to control the cobalt-60 died of cancer. He used to carry it around in the back of his car when we would go on the road. His bones disintegrated. He was the foreman of the inspection department.

***Laurie Ishak:***
I think we need to get everybody on the same conversation so we can get this thing under control.

***Mark Lewis:***
My point is… You see the profile. What you know is what we need. You may not be able to tell us everything you know now…

***Response:***
… But we can send you additional information.

**Question:**
Since the ORAU team can't go onto the Linde site, what is the recourse?

***Mark Lewis:***
That's where the worker data comes in. That's what I'm charged with – getting worker data from the people on the site. That's what we're doing here – keeping the site profile alive.

**Comment:**
On page 13, 2.1.3 Building 30, Ceramic… it says there that as of 1996, it was used as a shipping and receiving area, with about 25-30 employees. That was just shipping and receiving. As I've said, there were carpenters, shippers, riggers, fabricators from the truck shop… we're probably talking another 30 people or more. I worked there until 1978. At one time, there were probably 125 employees working together in that area. Riggers that were stationed in there…

***Mark Lewis:***
Did they locker in there?

***Response:***
They lockered in there, showered in there… everything. You're exactly right about the 20-30 people in there that were in shipping and receiving, but that doesn't take the other classifications that were in there into consideration.

**Comment:**
When our guys took the showers out, as we were remodeling, they asked if we should have them checked for radiation… Because there were two floors and the men's room was upstairs with showers and lockers, and they were going to replace them. They took out the drain lines, laid them out on the ground, and brought the Geiger counter over. They told them to seal them in a barrel. They told me to build a room in Building 38 for the sealed barrels, lock the door, and put a sign on the door that said "Radioactive Materials." That stuff didn't move until the Corps of Engineers tore the building down.

***Response:***
That's where the guys were working and taking their showers.

**Comment:**
I'd like to see a document that Bechtel wrote before they walked out. They probably felt there wasn't enough money. They came in with their presentation and the company reviewed it. When the company came out with their presentation – to show what they wanted done, Bechtel said "If we can't do it the right way, we won't do it at all." Bechtel walked out, and they got the Corps of Engineers to come in.

***Mark Lewis:***
This document (the site profile) is never going to be done, there will always be a chance for more input…

***Response:***
The input that you need… I never did get the information from Building 31. I asked for it because our guys worked there. I asked for the information on decontamination…

***Mark Lewis:***
We don't need to have everything documented 100% on paper. The things that people remember as a group, the things…

***Response:***
You need to know what the Corps of Engineers and DOE actually found on the site and where they found it.

***Mark Lewis:***
Yes, NIOSH could use that. But you don't know for sure either, do you?

**Question:**
The question that I have is so simple, it's scary. The only way that you can accurately know what's there is to actually go on the site. We don't have to…

***Mark Lewis:***
But all those buildings are gone now, though.

**Comment:**
If you read page 2 of this document, on the bottom… Bill tried to get permission to go on PraxAir property and they refused the request for the tour. Dennis Conroy said that many of the buildings have been demolished and have been backfilled. So, going there today… I haven't been there in at least six years. I retired fifteen years ago, but I haven't been there in at least six years, since they've been doing all this tearing down. Everything you'd want to see today is gone, but go with a Geiger counter. Don't go to look, believe me the buildings are gone, you don't want to look.

***Response:***
I don't want to look, I want them to dig. I'm talking about going out there with a bulldozer. I'm not going out there to take a tour. No, no, no…

***Response:***
I wanted to take Dave Allen… I told him, "Let's you and I go get Bill and the three of us go on the property with a Geiger counter." You don't have to dig.

**Comment:**
The nuclear pile that they cleaned up from the north parking lot, they put in Building 30. They had it in Building 30 for one whole year, pinned down with different colored pins, and then they decided to move it out. So they brought in gondola cars lined with rubber liners – heavy-duty rubber liners – filled up gondola cars below the rails, folded the liners over the top, so you couldn't see what was in those cars. And when those cars went off the property, they were not marked "containing radioactive material." And they were going out to Clive, Utah.

**Comment:**
That's a government issue.

**Question:**
Was Building 30 sealed up at the time?

***Response:***
Building 30 was sealed up at the time. But they hauled the nuclear pile from the north parking lot, where everybody parked, and moved it back into Building 30. And when I went out there, as union president, looking for garbage they told me they weren't going to throw on the ground, which was there, the foreman came up to me and told me to get out of there. I said, "Wait a minute, my guys are working right here. All this crap is here and the DOE told me they were going to pick it up. Here it is lying on the ground." So I left, but it was the last time they ever told me to leave, because I would have had them on it. Because I'm the president of the union – I'm responsible for those guys on that site. We were working right next to them. They didn't stop production while they hauled that stuff out. We were working right along beside them.

***Mark Lewis:***
You've got the Site Profile now. The things you're telling us now, that's input.

**Comment:**
I thought we did this before.

**Comment:**
We did. And they got some of it. I complimented Bill on it, he did a good job on that. Some of the stuff was missed, and we'll correct it, and we'll rectify more if we have to.

**Comment:**
Can't we see if we can get the DOE reports. Why are they not there? Can't we do a FOIA (Freedom of Information Act request)? What they found in Building 30 from the nuclear pile – what did they find in there? They kept the doors shut so we couldn't see what was going on. It took 43 gondola cars to move it all out.

***Mark Lewis:***
Are there any other things you would like Bill to present up here?

***Bill Murray:***
The important thing for you to remember is that it has to pertain to how you reconstruct the worker's dose. That's why we've made some assumptions about how much stuff they could have breathed in – how much radiation was in the area. It doesn't matter what was buried or what was taken off site. What matters is what the workers could have breathed in or what they were exposed to when they were working there. And in the residual contamination period, it was probably lower exposures than you were going to have when the stuff was being processed.

**Question:**
Let me ask you one question, Bill. In a compensation claim, say New York State, for instance – for a welder, say, even if they were a smoker – and they got lung cancer… All that compensation said was that it had to be causally related to your work. So if you were a smoker, it might have contributed to your disease, but if it was causally related to what you did, you were entitled to compensation. This compensation, with that 50% rule, eliminates causal relation, doesn't it?

***Bill Murray:***
No, it actually verifies it.

***Response:***
No, it doesn't. Because causally related – if you were causally related – it didn't mean whether it was 20%, or 50%, or 30% related. The fact that it was causally related to your work meant that it was compensable. In this, you're saying it could be – if it's over 50%. So it actually makes it more difficult to get than New York State compensation for something that's causally related doesn't it?

***Bill Murray:***
I'm not familiar with New York State law.

***Response:***
New York State law says causally related.

***Mark Lewis:***
I'm not familiar with the way the law was before, but I think…

***Response:***
New York State law says causally related… if you were a smoker and you got emphysema, it could have come from smoking, but because you were a welder, as long as it was causally related, they didn't put a percentage. You were entitled to compensation, because it contributed to your occupation. This, by a 50% rule, takes away causal relation, doesn't it? Because you have to say how much came from smoking and how much came from this, how much came from that. How could you overcome that? I don't understand how this is supposed to be easier than compensation.

***Bill Murray:***
We don't have a choice. That's the way the law is written. It has to be more than likely that the radiation is related to the cancer. And the only way you get that is by the radiation dose, and for that dose the probability of causation has to exceed one-half – 50%.

***Mark Lewis:***
Whether a claimant smoked, and how much they smoked, is part of the module.

***Response:***
Sure it is, and I know what's going to happen… it's going to be 49.999 and it will be denied – that's the scary part. Are we then saying that should be changed in the law?

**Question:**
You know what the difference is? The coal miners got the Black Lung and everybody got it because they worked in the mines. They had a strong union, that's what the difference was.

**Comment:**
The government sold all those sites to private industry. If they allowed it to happen, if they start compensating people, they have to start compensating those industries that they have sold those plants to. That's the bigger issue. The government is afraid they'll have to compensate those companies because they told them in those documents that those properties were clear.

**Question:**
How did the coal miners get compensated? Is that figured on percentages? There were no percentages.

***Mark Lewis:***
I have no idea. I really don't.

**Comment:**
Black Lung went through a period of 5 years before everybody got compensated. But once the Black Lung claim was paid, they got paid the rest of their lives. It wasn't based on percentages.

**Question:**
How do the uranium mine workers get paid?

***Mark Lewis:***
I have no idea.

**Question:**
Because they got compensation from working in the mines.

***Mark Lewis:***
They were paid before anyone. They're still being paid.

**Question:**
Did they do dose reconstruction for the uranium miners?

***Mark Lewis:***
I have no idea.

**Comment:**
No. All they had to do was show they worked in the mines.

**Comment:**
I'll tell you what… I bet you they don't.

***Mark Lewis:***
I have no idea. But I wish I could find out… *(Laughter.)* We appreciate your being here. I can tell you're getting ready to leave.

**Comment:**
Bill, I hope you're not upset with us.

Mr. Lewis adjourned the meeting at approximately 4:10 p.m., thanking the attendees for their participation.