

#### **Meeting Date:**

April 18, 2005

#### **Meeting with:**

PACE / United Steelworkers of America Local 1-00277 Former Linde Workers

#### **Attendees:**

Thomas M. Murphy	Linde worker (Retired)
Mary Jane Dalessandro	Bethlehem Steel
J. Kaminski	Bethlehem Steel
Edward Schwaltz	Linde
James Rauch	F.A.C.T.S.
Roger Cook	WNYCOSH
Ed Walker	Bethlehem Steel Company—Retiree
Michelle Adams	Congresswoman L. Slaughter staff
Stephen C. Halper	Attorney
Jane Schroeder	Congresswoman L. Slaughter staff
Michelle Adams	Congresswoman L. Slaughter staff
Kristin Powers	Lipsitz and Panterio, LLC
John N. Lipsitz	Lipsitz and Panterio, LLC
Joseph Sebastian	PACE / United Steelworkers of America (USW) International
	Representative
John Lauer	PACE / USW Local 1-00277, Linde Retiree
Russ Gaiser	PACE / USW Local 1-00277, Linde Retiree
George Ciancio	Linde Retiree
Charles Spencer	Linde Retiree
Raymond Miller	Linde Retiree
Dick Even	Linde Retiree
Don Collins	Linde Retiree
John Antonucci	Linde Retiree
Ralph Krieger	PACE / USW Local 1-00277

# **NIOSH and ORAU Team Representatives:**

David Allen – National Institute for Occupational Safety and Health (NIOSH)/Office of Compensation Analysis and Support (OCAS)

Laurie Ishak – NIOSH

Bill Murray – Oak Ridge Associated Universities (ORAU)

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

Melissa Fish – ORAU

Art Gutzman – Dade Moeller and Associates

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#### **Proceedings**

Mark Lewis began the meeting by introducing himself and describing his former work history with the Paper, Allied-Industrial, Chemical and Energy Workers International Union (PACE) as well as his work at the Portsmouth site. Mr. Lewis explained that the Worker Outreach team is seeking the worker point of view regarding the practices that took place at the Linde site. Mr. Lewis explained that a recorder is being used to record the comments and concerns voiced at the meeting. The recorder will not be used to identify which person made which comment. He reminded everyone that the purpose of the meeting is to discuss Linde work procedures and not individual cases. Mr. Lewis added that after the meeting the NIOSH/ORAU team will scan the documents that Ralph Krieger brought to the meeting. Mark Lewis then introduced the NIOSH/ORAU team.

Dave Allen thanked everyone for attending the meeting and reiterated that the purpose of the meeting was to get "the rest of the story". The National Institute for Occupational Safety and Health (NIOSH) is seeking information about the Linde site from the perspective of the workers. Mr. Allen indicated that he would try to answer more detailed questions and technical questions during the breaks or after the meeting.

Bill Murray extended his gratitude to the people who took the time to attend the meeting and he stressed the importance of worker input into the Linde Site Profile process. Mr. Murray explained that the Linde Site Profile has not been approved yet and that various drafts of the document have been written and distributed. The draft that the Worker Outreach team currently has is substantially different than the draft version that other meeting attendees have. Mr. Murray added that when the Linde Site Profile document is approved, the Worker Outreach Team can send out copies to people who are interested. Mr. Murray requested that meeting attendees fill out the sign-in sheet.

Ralph Krieger thanked people for attending the meeting and stated that the meeting was a unique gathering of union and management working for the benefit of the Linde workers. He encouraged meeting attendees to describe what they did, where they worked, and the environment in which they worked. Mr. Krieger also pointed out that he had brought in what he considered to be three million dollars worth of information for the NIOSH/ORAU team to scan. Mr. Krieger added that two things should be dealt with—radiation and chemical exposures. Mr. Krieger went on to say that employees who worked in Building 30 often told stories about how Building 30 was never cleaned up.

**Question:** Was NIOSH/ORAU allowed to go on the Praxair property?

**Bill Murray:** Praxair refused the request for a tour. They said that many of the buildings have been demolished and have been backfilled.

<u>Comment:</u> The buildings were used for very different purposes and are in close proximity of one another. Later it was found that the drain lines were contaminated.

<u>Comment:</u> A former employee (*name deleted*) worked in the yards picking up our scrap. Years later, (*name deleted*) developed esophageal cancer and mouth cancer.

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Bill Murray thanked Ralph Krieger and Joseph Sebastian for their hard work in setting up the Linde Site Profile meeting. Mr. Murray explained that Art Gutzman would be scanning the documents that Mr. Krieger brought to the meeting. Mr. Murray emphasized that because the site profiles are "living documents," NIOSH is always interested in revising the site profile documents when new information comes to light. He provided the example of the Savannah River Site Profile, which has been revised three times due to worker input.

<u>Comment/Question:</u> Concerning Building 30, will NIOSH review and incorporate information about the destructive behavior before 1976? We want information before 1976 to be incorporated into the Linde Site Profile.

**Dave Allen:** Yes, the information will be divided into different periods of operation and will also include residual contamination.

*Bill Murray:* Section Two says that the information in the Linde Site Profile supports assumed operational and residual contamination periods. Regarding the Tonawanda Laboratory, the operational and initial cleanup period included October 1, 1942 to December 31, 1946. The residual contamination period started on January 1, 1947 and continues until the present. For the Ceramics Plant the operational and initial cleanup period dates from October 1, 1942 to December 31, 1954. The Ceramics Plant was on stand-by from August 1, 1946 to September 14, 1947. The residual contamination period at the Ceramics Plant started on January 1, 1955. This document uses the best information that we could find dating back to 1942.

<u>Comment:</u> The Linde Site Profile does not include any information regarding the renovation of Building 30 from 1961 to 1967 when they were knocking contamination all over (jack hammering floors, tearing down scaffolding, and taking down beams). As far as we can tell from the Linde Site Profile, NIOSH does not even know about the years of renovation that took place in Building 30. It is also important to understand that we are talking about renovation and not residual clean-up. When I testified about this renovation process, the company did not challenge any of the renovation information that I had submitted.

*Bill Murray:* This is exactly why we are here. We need this kind of information from the site experts—former workers.

At this point, the group took a moment for introductions. Each meeting attendee provided a brief history of his or her work experiences and years of employment. Many of the meeting attendees began working at the Linde site in the early 1950s.

<u>Comment:</u> Before they put the "pile" in the North Parking Lot, Building 57 was a common dumping ground at Linde. Building 57 was eventually torn down because of the radiation contamination below it.

<u>Comment:</u> This meeting is so important because when NIOSH established things like black lung and brown lung—the effort was started by workers and not public health officials or highly paid consultants. It is too bad that this meeting did not occur earlier. I encourage NIOSH to take the information gained from this meeting very seriously. Secondly, because it seems that the onus is always put on the worker to prove causality, NIOSH has a responsibility to explain contributory causality.

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**Bill Murray:** We agree that it would have been beneficial to have this meeting earlier. However, this is not the only site that we have. There are over 300 sites and we are working to address the sites as best we can.

<u>Comment:</u> My father was told that he had black spots on his lungs. Later, I was told by my doctor that I had a black spot on my lung—I did not smoke. There have been many other Linde workers who have been diagnosed with black or brown spots on their lungs as well.

Bill Murray began his presentation by explaining that the Linde Site Profile was developed under the Energy Employees Occupational Illness Compensation Program Act (EEOICPA). Under Subtitle B of EEOICPA, radiation claims are submitted to the Department of Labor (DOL); DOL verifies the claim and then sends the claim to NIOSH for dose reconstruction. Mr. Murray explained some of the specifics relating to Subtitle B of EEOICPA.

Mr. Murray explained that NIOSH is an agency within the Department of Health and Human Services. The specific group that handles the radiation claims is the Office of Compensation Analysis and Support (OCAS). Oak Ridge Associated Universities (ORAU) is a contractor working for NIOSH on this very large project. EEOICPA was signed into law in December of 2000. In July 2001 the DOL began accepting claims. In September of 2002, the ORAU Team was awarded a contract to support radiation dose reconstruction.

Mr. Murray explained that the Site Profile documents support the dose reconstruction effort. A Site Profile is used by radiation specialists to reconstruct radiation doses for workers. The Site Profile provides site-specific technical information and can be used like a technical handbook, minimizing the interpretation of data so that all radiation claims are treated the same. Site profiles can be revised when new information which could potentially impact dose reconstruction becomes available.

Mr. Murray described the different sections of the Linde Site Profile. The Linde Site Profile contains a site description and operational history as well as sections on internal exposure, external exposure, occupational medical exposure, and estimation of residual exposures. Mr. Murray emphasized that the doses that are being considered under EEOICPA go far beyond what would be considered for compliance or a regulatory program. This is done so that the people who submit claims are assigned a maximum dose which will increase their chance of having their claim awarded.

Mr. Murray identified Gerald Davidson as the author of the Linde Site Profile. The fourth draft of this document has been submitted to NIOSH for review. Once it is approved, it can be viewed on the NIOSH website: <a href="http://www.cdc.gov/niosh/ocas/ocastbds.html">http://www.cdc.gov/niosh/ocas/ocastbds.html</a>. Mr. Murray explained that the Site Description and Operational History section of the Linde Site Profile provides an overview of the activities at Linde from October 1, 1942 to December 31, 1954. This section also documents the radioactive materials that were at the site and identifies potential radiation exposures.

<u>Comment:</u> Up until 1996 when the Department of Energy (DOE) started remediation work, the Linde site was licensed by the state of New York as a nuclear site. DOE came in and the state license was dropped. We are a DOE site as well as an Atomic Weapons Employer (AWE) site.

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**Dave Allen:** The distinction between DOE and AWE is not significant as far as what we are doing here today. We are more interested in what people were exposed to.

Continuing with the site description, Mr. Murray stated that the Ceramics Plant processed uranium between January 1, 1942 and December 31, 1954 (including the stand-by and clean up period) and that the Tonawanda Lab performed research and development on uranium processing. The Linde Site Profile acknowledges that liquid wastes were discharged and that the residual contamination exposure period is from January 1, 1947 at the Tonawanda Lab and from January 1, 1955 at the Ceramics Plant to the present.

<u>Comment:</u> Years ago some sites were declared to be "hot" and standards were developed which stated that X mrem per hour of exposure was a hazard. As a result, in the 1970s the FMC Corporation was closed down because they exceeded that limit. I would like to know what that limit is today.

**Bill Murray:** The regulatory limit has changed significantly over time. Right now the regulatory limit for whole body radiation is 5 rem per year for occupational exposure. Some international guidance is now saying there should not be more than 10 rem in any five years, with a maximum of 5 rem in a single year.

<u>Comment/Question:</u> Regarding radiation, I want to know what the limit is that the human body can take.

**Dave Allen:** That is a moving target which has a tremendous amount of variables.

**Question:** There are people who worked 40 years in an environment that was "hot." What dose is going to cause these people to be "the walking dead?"

**Dave Allen:** That is still a moving target.

*Bill Murray:* The standards changed over time. Back in the 1950s you could get up to 15 rem per year. As we learn more about the long term effects of radiation, the standards change and acceptable dose limits have decreased. I think what you are asking is how much radiation you can receive before you develop cancer. Nobody can answer that question because there are so many individual factors involved. In general, most people believe that a dose of 1 rem increases a person's likelihood of developing cancer by about one tenth of one percent.

<u>Comment:</u> What bothers me is that we do not know how much radiation dose is too much. My office was directly on a radioactive well for 40 years. I do not have cancer right now and I do not want to get it. We are looking for help from you—the National Institute for Occupational Safety and Health—to tell us how much radiation we can take.

**Dave Allen:** The truth of the matter is that people do not know the answer to that question.

*Bill Murray:* To relate this to EEOICPA, what they do here is add up the entire dose (internal, external, medical, and residual contamination) using claimant favorable assumptions for anybody who has worked at the site. Then, they take all of the information that we have alluded to during this meeting (radiation induced cancers and doses) and put the information into a computer program developed for NIOSH by the National Cancer Institute. This computer program is called the Interactive RadioEpidemiological Program (IREP). Using the dose that was reconstructed

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and cancer related data that is known today, IREP gives a probability between zero and one. If the result is greater than 50 % probability that your cancer is related to radiation, you will receive compensation. If the probability is less than 50 % you will not receive compensation.

**Question**: You just used the term "related" and I would appreciate it if you could expand upon that. What do you mean by "related?"

**Bill Murray:** A lot of people get cancer. The amount of radiation dose to the organ in which that cancer occurs is entered into IREP which then calculates a probability between zero and one. If it is determined to be more than likely that the cancer was related to radiation (over 50%) then the person will be compensated.

**Question:** What is the standard by which relatedness is measured?

**Dave Allen:** The tables used in IREP are dictated in the law and are out of the 1989 National Cancer Institute Radiation Epidemiology tables.

**Question:** Can you explain to us in layman terms what standard relatedness is measured by?

**Dave Allen:** A lot of the information in the tables is derived from atomic bomb survivors, uranium mining studies, and long term follow-up with people who received significant doses. The long term follow up is used to determine which percentages of people develop cancer after an exposure and to calculate risk per unit dose.

<u>Question:</u> Would you consider relatedness in a situation where a non-exposed population finds 10 cases of a particular type of cancer over a million people and in an exposed population there are 11 cases of that cancer over a million people—would that be factored in?

**Dave Allen:** Yes, information like that is factored into the table. It compares the people with exposure, how many get cancer versus an unexposed population—a relative risk.

**Ouestion:** Does it have to be twice the baseline risk to be considered related?

**Dave Allen:** That is essentially what the program does. The law dictates "at least as likely as not" as the criteria for compensation. The way the program is set up is that when you reach a probability of causation of 50 % that essentially means "as least as likely as not," or doubles the chance of the unexposed population.

**Comment:** So you are talking about double the risk.

Dave Allen: Essentially, yes.

<u>Comment/Question:</u> What if the calculation that is derived is 49.9999% and the claim is denied? How could a claimant challenge that when the claimants do not have the formula or statistical information that was used? Nobody has the statistical information needed to challenge a finding of 49.9999%. I have seen claims denied at 47.8 %. NIOSH could make a mistake, yet NIOSH does not give the claimant any options for challenging the results of their claim.

**Dave Allen:** There are ways to challenge the result of a claim. Also, this is a very open program and the information that is used to complete these calculations is publicly available but is very difficult to understand. The Probability of Causation Rule deals with this particular program and how the calculations are performed. The Dose Reconstruction Rule deals with how we go about

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putting together a dose reconstruction and entering the information into this program. The website is open to the public and has a number of files and references regarding where to look as far as how OCAS does its job. The information used which may have resulted in a claim being denied is all linked to our website. This is mentioned in the letter to the claimant.

**Bill Murray:** When a claim is filed and NIOSH performs a dose reconstruction, the claimant will get the results of the dose reconstruction showing the claimant's dose by year for internal, external, and residual contamination. It will then tell you your total dose to a particular organ. If the claimant chooses to do so, the claimant can go through and plug the numbers into the IREP which is on the OCAS website. A claimant who files a claim will end up with a dose reconstruction which outlines the claimant's dose and how the dose was determined.

**Question:** How many claims have been completed and what percentage of the completed claims has been paid?

**Bill Murray:** It will vary widely depending on the site, but somewhere between 20 and 30% of the claims are awarded.

<u>Comment/Question:</u> We are not looking at a controlled area. Linde was far from controlled. When you perform dose reconstructions what element are you using? How do you perform a dose reconstruction when you have uncontrolled sites? Lake Ontario Ordinance Works has been found by the Corps of Engineers to contain plutonium. There is only one place that the plutonium could have come from—Linde. Again, how do you perform a dose reconstruction on an uncontrolled site? We are not talking about a nuclear power plant. How do you perform a dose reconstruction with any accuracy for each isotope?

**Question:** Regarding the decontamination contract at Linde, there is no information that can be found on the clean-up at the Tonawanda Laboratory. How are you going to get that information when you are not even allowed on the property? How can you even try to make any type of judgment when there is not any information available?

**Dave Allen:** There are some areas of the Linde Site that lack a lot of information. Right now what you are seeing in front of you is the best information available. If we get to the point where we decide that we cannot estimate the dose with reasonable accuracy, then we will start looking towards the Special Exposure Cohort route.

<u>Comment:</u> Working in the Testing Department at Linde, I was involved in all types of testing. We handled strontium-90, uranium, and did all of the "cutie pie" testing. Twenty percent of the people I worked with died under the age of 50. They are dead and you do not have their claims.

**Comment:** The chemical component is not being addressed here today and should be added in with the radiation.

<u>Comment/Question:</u> This is from the document <u>Federal Connection</u>, <u>Volume 1 (page 125):</u> <u>Decontamination Required at Linde Plant</u> "The site of the Linde Ceramics Plant was itself theoretically decontaminated in June of 1949 at a cost of \$53,000.00."

Building 14 cost over \$30 million just to rehab it. Do not tell me about a site clean-up, I do not want to hear it! Our guys went in there after Building 30 was empty and started doing wipe tests on the beams, walls, and the unit heaters, in which they were finding contamination. Considering

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that Building 30 was painted in 1970, how did that happen? Where did that material come from? There was no processing going on there. Dust was coming off of the unit heaters when the doors opened up, when mechanical sweepers were used, and when the pigeons flew around—the dust was in the air continuously. How do you determine what isotope people were exposed to? I know that each isotope is different. The dose reconstructions are bull\*\*\*\*! You cannot tell me that you can accurately go along and perform dose reconstructions when you do not even know where the guys worked! You are assuming that they worked at X spot over a lifetime. My guys worked all over that plant and never wore dose badges! This dose reconstruction effort is bull\*\*\*\*, bull\*\*\*\* -- and since I have a farm I know what that is!

At this point the group took a brief break.

Note: The ORAU Team attempted to record this meeting. However, after the break there was a problem with the audio recorder. The detail of these minutes was compiled to the best of our ability from the notes of people who attended the meeting.

Mr. Murray explained that the Linde Site Profile indicates the types of radioactive materials that were brought into Linde. The radioactive materials used at Linde included refined uranium material, partially refined domestic uranium ores, and unprocessed African uranium ores. Uranium processing was a three step process.

Mr. Murray indicated that the primary sources of internal radiation exposure were natural uranium and its progeny (daughter nuclides). When uranium decays and gives off radiation it changes into new elements and those new elements are also radioactive. This occurs on and on down the chain until it turns to lead. The data that was captured and examined for the Linde Site Profile included uranium urinalysis data from workers, uranium air sampling data, radon breath measurements, and radon air measurements. Mr. Murray went on to explain that considering the process data and the limited measurement data that NIOSH could find, the NIOSH/ORAU Team developed summary dose tables for the Ceramics Plant and the Tonawanda Laboratory for the period from October 1, 1942 to December 31, 1954. The summary tables include intake or exposure to uranium-234, thorium-230, radium-226, polonium-210, protactinium-231, actinium-227, and radon-222. However, NIOSH is currently evaluating whether or not they have enough information to support the dose summary tables for all years.

**Question:** How do you decide on a radiation reading for a building?

**Bill Murray:** When we do not have adequate information, we look at the maximum reading and default to the worst case scenario.

**Question:** Do you seriously consider what information people tell you? Do you take people at their word?

**Dave Allen:** We look at all of the information that we have. If we cannot find documentation, we assume the worst case scenario when completing the dose reconstruction.

*Bill Murray:* We make every effort to favor the claimant.

**Question:** The Maintenance Department employees worked everywhere throughout the property. How can you account for this in the dose reconstruction?

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**Dave Allen:** We would assume that they worked in the "hottest" area. When a maintenance employee files a claim and it is established that they worked at Linde, we would put that person in the highest exposure building when performing the dose reconstruction.

**Comment:** There are other diseases besides cancer that workers have developed.

**Dave Allen:** Subpart B of EEOICPA deals strictly with radiation and cancer. We do not have authority over anything else.

Laurie Ishak: If you do not have cancer you could file under Subpart E of EEOICPA.

<u>Comment:</u> I have heard that the input that workers provided regarding Bethlehem Steel has not been incorporated. Since NIOSH does not incorporate worker information there is no reason for workers to bother providing worker information for the Linde Site either.

<u>Comment/Question:</u> There was very little documentation about Bethlehem Steel. Why did NIOSH begin performing dose reconstructions? It was not smart to try to perform dose reconstructions or begin writing a site profile before getting worker input.

**Bill Murray:** The Linde Site Profile was already underway when the Worker Outreach Program was first put together. Now, we are going to the sites and seeking worker information. If we find new information we will revise the Linde Site Profile. Remember, the Linde Site Profile is a living document.

<u>Question:</u> Bethlehem Steel workers are having their claims denied but their input was never considered in the process. How is it even remotely rational to put an entire site process together without consulting those site experts?

*Bill Murray:* When NIOSH gets new information that will impact the dose reconstructions, NIOSH will go back and re-open the claims that were previously denied to see if the new information changes the claim and makes it compensable.

**Question:** Are the Dupree studies being included and used in the Linde Site Profile? The cancer numbers were diluted.

Dave Allen: The numbers from the studies are not being used in the Linde Site Profile.

**Bill Murray:** There is reference to the Dupree studies because we were able to use information regarding the processes, exposures, and activities that occurred at the site. We would not have used the risk data.

**Comment:** The Linde Site Profile says that most of the time workers wore respirators; this is simply not true at all.

**Comment:** I do not find much use in the Linde Site Profile. Have you even tried to get medical records?

**Dave Allen:** We were able to get some medical records.

<u>Comment:</u> Linde was politically well connected. Because of this political connection, they were patted on the back when they kept workers working in Building 14. It will take real political pressure to get medical records for Linde workers released.

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**Comment:** The Special Exposure Cohort process is clearly political.

<u>Comment:</u> There is no difference between Mallinckrodt and Linde. At both sites the emphasis was on production and never on worker safety.

<u>Comment:</u> Building 30 was heavily contaminated. Linde was kept out of Title 1 due to a License Amendment.

<u>Comment:</u> I am appalled at how little NIOSH knows about the Linde Site. Workers went into buildings without protection. In 1996 there was an illegally terminated license—they said it was a bookkeeping error. Exposures continued. It is incomprehensible that Mallinckrodt could get Special Exposure Cohort status and Linde would not get the same status.

Dave Allen: Mallinckrodt has not been approved as a Special Exposure Cohort.

Laurie Ishak: The Special Exposure Cohort petitioning process has been in place since 2000. The way it works is that a petitioner files a Special Exposure Cohort petition asking that the Secretary of Health and Human Services (HHS) to add a class to the Special Exposure Cohort. The petition goes to NIOSH where it goes through a qualification process. If the petition qualifies, the petition is evaluated and NIOSH puts together a Petition Evaluation Report. The Petitioners and the Advisory Board on Radiation and Worker Health (ABRWH) get a copy of the Petition Evaluation Report. NIOSH will also present a summary of the Petition Evaluation Report at the Board's next meeting and Petitioners can offer comments regarding the report. The ABRWH will make a recommendation that then goes to the Secretary of HHS. The Secretary has 30 days to make a recommendation to Congress to add or deny adding a class to the Special Exposure Cohort. Congress then has 30 days to make a decision. Linde could petition like Mallinckrodt did.

**Comment:** Linde and Mallinckrodt are very similar. Money is being wasted and Congress is irresponsible. This program is all about politics and who you know.

**Comment:** There are three references to the Dupree study in the Linde Site Profile.

**Bill Murray:** Those references are not about the results of the study. Information about the processes that took place is what was used in the Linde Site Profile and not the results of the study.

<u>Comment:</u> Peer reviewed studies should not be accepted at face value because peer review is not completely unbiased.

*Bill Murray:* That is your opinion. I do not agree with it—especially regarding this journal, the Scandinavian Journal of Work, Environment and Health. This is an excellent journal that is not influenced by the nuclear industry.

Mr. Murray resumed his presentation with a discussion of the external dosimetry section of the site profile. He stated that some film badge data for gamma radiation exposure were found. There were limited badge data for beta radiation and there were some measurement data in some areas for some times. A summary table was created for annual external exposure by year, work category, beta radiation, gamma radiation, and neutron radiation.

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Mr. Murray explained that the Linde Site Profile includes information and doses for employer-required x rays. This includes the type of equipment used, frequency and type of x ray exams and the period over which x rays were taken.

Mr. Murray indicated that residual contamination exposure is considered to have begun on January 1, 1955 and continues through the present, and includes both internal and external exposure estimates.

Mr. Murray emphasized that developing a usable site profile is an important task and that the Linde Site Profile can be changed based on worker input. Any comments regarding the site profile should be sent directly to NIOSH. Mr. Murray provided the mailing address for NIOSH as well as an e-mail address and fax number.

<u>Comment:</u> X rays will not be found because in 1983 the union approached me about requiring x rays for all workers. We protested the decision and took it to arbitration. It was ruled that nobody could be forced to have an x ray unless they were told why they were being required to do so.

**Bill Murray:** We are looking back historically. All we need to know is if you received an x ray or not. We are assigning you a dose assuming that all employees received an x ray. This general assumption is claimant favorable and is in your favor. If you really did not receive an x ray that is good for you, you will still receive the dose as if you did.

**Question:** Why did the four facilities receive Special Exposure Cohort status?

*Bill Murray:* NIOSH did not have the responsibility of determining those four Special Exposure Cohorts. Congress made that decision.

**Question:** What can we do?

**Bill Murray:** NIOSH is seeking information about occurrences that we would normally not hear about from the company or find in company documents. Tell us the types of things that went on, what the practices were. This type of worker information is important.

*Mark Lewis:* We appreciate all of you giving your time today. We appreciate any additional information that you can provide to us.

*Bill Murray:* We agree that it would be ideal to meet with workers before a site profile is ever started. However, that did not happen so we are continuing to seek input. We will revise the documents as necessary.

*Bill Murray and Mark Lewis:* Thank you for attending the meeting. We will be here all day if anyone would like to talk.

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