

# National Institute for Occupational Safety and Health (NIOSH)

## Town Hall Meeting for Brookhaven National Laboratory

**Meeting Date:** September 24, 2008, 6:00 p.m.

**Meeting With:** Current and former workers from the Brookhaven National Laboratory, and other interested parties, North Shore Public Library, Shoreham, New York

### **NIOSH Worker Outreach Team:**

Laurie Breyer, JD, National Institute for Occupational Safety and Health (NIOSH), Office of Compensation Analysis and Support (OCAS), Special Exposure Cohort Petition Counselor  
Grady Calhoun, NIOSH, OCAS, Health Physicist

Mary Elliott, Advanced Technologies and Laboratories International, Inc. (ATL), Technical Writer/Editor

Mark Lewis, ATL, Senior Outreach Specialist

Wilfrid "Buck" Cameron, ATL, Senior Outreach Specialist

### **Also Attending:**

Nancy Adams, NIOSH, Office of the Director, Contractor

Trese Louie, U.S. Department of Labor (DOL), Division of Energy Employees Occupational Illness Compensation (DEEOIC), Office of Ombudsman

Sharon Lave, DOL, DEEOIC, Cleveland District Office

David San Lorenzo, DOL, DEEOIC, New York Resource Center

### **Proceedings:**

Laurie Breyer opened the meeting at 6:00 pm. She explained that NIOSH is responsible for performing the Department of Health and Human Services (HHS) roles under the Energy Employees Occupational Illness Compensation Program Act (EEOICPA). She thanked the attendees for coming and expressed concern that there is not much involvement in the program from the Brookhaven community. She said the lack of activity is unusual, given the size of the Lab and the amount of time that Brookhaven National Laboratory has been in existence.

Ms. Breyer briefly reviewed the history and structure of the EEOICPA and the roles of NIOSH and the U.S. Department of Labor (DOL) under EEOICPA Part B. She introduced Grady Calhoun, a Health Physicist at NIOSH, and Trese Louie, a representative from the DOL Ombudsman Office. Ms. Louie stated that the Ombudsman Office is totally separate from the office that actually implements the program. The Ombudsman Office takes complaints on Part E claims and reports back to Congress. Ms. Breyer stated that Ms. Louie may be able to help any attendee with questions about chemical exposure and other illnesses. Ms. Breyer also acknowledged Sharon Lave from the DOL District Office in Cleveland. She stated that Ms. Lave could help with any Part B claims, and could check the status of individuals' claims for Part E. She also introduced David San Lorenzo from the New York Resource Center in Buffalo. She stated that Mr. San Lorenzo could help people fill out the paperwork to initiate claims.

Ms. Breyer then turned the floor over to Mr. Calhoun and invited the attendees to ask any questions throughout his presentation.

Mr. Calhoun described his professional experience, including working at the Fernald site for 11 years and prior to that at a nuclear power plant in Cedar Rapids, Iowa. He said that he handles some aspect of approximately 75% to 80% of all individual dose reconstructions conducted by NIOSH. He is involved in technical basis document review and serves as the NIOSH lead person for the Special Exposure Cohort (SEC) Petition for Brookhaven National Laboratory.

Mr. Calhoun explained that the SEC is a group of individuals whose claims do not go through the dose reconstruction process because NIOSH has deemed that dose reconstruction is not feasible for that group. Claims for workers who qualify for the SEC class are paid automatically if the worker had one of the 22 listed cancers and 250 days of employment at the facility.

**Mr. Calhoun began the presentation:** EEOICPA is a very complex program because three separate government entities have responsibilities under the program: The Department of Labor (DOL), the Department of Energy (DOE), and the National Institute for Occupational Safety and Health (NIOSH), which is part of the Department of Health and Human Services (HHS). NIOSH reconstructs the radiation doses for Part B claims and evaluates the SEC petitions. NIOSH also developed the guidelines for calculating the probability of causation that determines the likelihood that the cancer may or may not have been caused by radiation.

The dose reconstruction process starts when you file a claim with the DOL. To file a Part B claim, the energy employee must have had cancer and have worked at a DOE nuclear weapons facility. The DOL verifies the employment and the cancer diagnosis, and then forwards the case to NIOSH for dose reconstruction. When NIOSH receives the case, they contact the DOE facility where the employee worked to request all the records for the claimant, including internal and external dosimetry records, incident reports, and medical X ray records. The site gives NIOSH that information if it is available.

While NIOSH is waiting for those records, they conduct the CATI (computer-assisted telephone interview). The interview questions are sent out to the claimant(s) in advance. Those questions include such topics such as where the individual worked in the facility, the radioactive materials in the work environment, participation in the bioassay program, whether the individual wore a TLD (thermoluminescent dosimeter) or film badge, and involvement in contamination incidents. The interview is completely voluntary. When the interview is completed, NIOSH sends the interview report to the individual to provide a chance for them to correct any errors or omissions.

NIOSH performs the dose reconstruction using the information from DOL, the CATI report, and the information from DOE. A dose reconstruction involves calculating the dose to the organ that has the cancer. NIOSH calculates the radiation dose to the worker's organ, rather than the whole body dose typically reported in the worker's record of dose.

The dose reconstruction includes the internal dose, external dose, and any ambient dose received (if not monitored). If an employee worked at the site and was not monitored, some dose will be assigned. NIOSH also includes the radiation dose from medical X rays that were received as a condition of employment. X rays for workplace injuries are not considered a condition of employment.

When the dose reconstruction is complete, NIOSH sends a draft report to the claimant and arranges a close-out interview to discuss with the claimant how they arrived at the dose. At that time, if the claimant disagrees and NIOSH has not made an error, there is a chance to provide

more information. NIOSH asks the claimant to sign the OCAS-1 form if the information is correct and there is no additional information. The dose reconstruction may be revised if the claimant provides additional information. If the claimant does not sign the OCAS-1 form, the case will be administratively closed. Once NIOSH receives the signed OCAS-1 form, they send the final dose reconstruction to DOL, which makes the decision whether the probability of causation is 50% or greater. If it is, the claimant receives \$150,000 plus payment for medical costs. If the probability of causation is less than 50%, the claim will not be compensated. If the claim is denied, the claimant can appeal the case through DOL.

NIOSH uses a lot of different information to do the dose reconstruction – the type of cancer, employment information, individual dosimetry data, the CATI transcript, and site profile data. The Brookhaven site profile describes the work processes, the site history, the film badges and TLDs that were used, the neutron monitoring methods, the urinalysis methods, X rays, etc. When site profiles are revised with new information that may increase the dose, NIOSH recalculates the dose reconstructions for denied claims to see if the change increases the dose enough to make the cases compensable.

NIOSH looks at the worker's dose record and evaluates the shortcomings and accuracy. When the dosimetry records show "0" dose, NIOSH knows that based on the type of dosimetry used, there is a limit of detection. For example, if the dosimeter can read 25 mrem or more, and a worker received a dose of 24.9, the dosimeter will read "0." NIOSH receives the dosimetry reports as "0s" but takes into account the possible "missed dose." NIOSH also looks at the quality of the data and the instrumentation that was used at the time.

NIOSH also looks for "unmonitored dose." Sometimes workers were not monitored properly, so NIOSH looks at the dose records of monitored workers – generally those at higher risk for radiation exposure – and uses their dosimetry data to determine a distribution of dose that can be assigned for the unmonitored workers. NIOSH also uses recommendations from organizations like the International Council on Radiation Protection (ICRP).

NIOSH also uses data from area dosimeters to calculate an environmental dose. NIOSH used reports from the accelerator areas at BNL to calculate neutron dose from the dosimeters set up in those areas. If NIOSH thinks that there is not sufficient neutron monitoring for a worker, that neutron dose may be assigned. NIOSH may also use surrogate air monitoring data from other sites to determine a worker's internal dose from inhalation because there is no indication of air monitoring at Brookhaven.

NIOSH can also use source term data for radioactive materials such as uranium and plutonium to assign an external dose to unmonitored workers. Dose reconstructors can estimate the workers exposure based on standard source term data based on the hours the worker spent close to the source. Estimates using source term data tend to be high.

A CATI interview can last from 20 minutes to several hours. The interview is recommended but not required. Classified information cannot be discussed during the telephone interview, but NIOSH can arrange for secure interviews for claimants who have classified information. NIOSH has interviewers with Q clearances who can conduct such interviews in a secure area that has been approved by DOE.

The dose reconstruction report is broken up in sections: cover page, introduction, and overview. The overview contains the dose assigned and NIOSH's recommendation. The DOL makes the final determination after the data is input into the Interactive RadioEpidemiological Program (IREP), which gives the percent probability of causation. If the probability of causation is 50%

or greater, the case may be compensated. NIOSH uses claimant-favorable assumptions at the 99<sup>th</sup> percentile, which means that for a probability of causation of less than 50%, there is a 99% chance that the radiation did not cause the cancer. The dose reconstruction report includes the information that was used, the background information, the dose estimate, the summary, the references, and a “picture” of the Excel spreadsheet that DOL uses to calculate the probability of causation.

The Special Exposure Cohort was established by the EEOICPA. Four facilities were included in the SEC when the Act was legislated. If a worker is an eligible member of a SEC class, has one of the 22 specified cancers with the prescribed latency period, and 250 days of employment verified by DOL, the case does not have to go through the dose reconstruction process. Those cases are paid automatically by DOL.

The four sites that were included in the act are Amchitka Island in Alaska and the Portsmouth, Paducah, and Oak Ridge (K-25) gaseous diffusion plants. Other sites may petition to add a class of workers to the SEC. A proposed class may be added to the SEC when NIOSH cannot put an upper bound on the radiation dose the workers received, and that the radiation dose received likely endangered the health of the workers.

An SEC petition has been filed for Brookhaven National Laboratory. The petition has to go through the qualification process. The petition must provide a basis for why they believe NIOSH cannot complete sufficiently accurate dose reconstructions. For example, if the petition states that the monitoring was insufficient, it will likely be evaluated.

Right now the SEC petition for Brookhaven is in the evaluation process. NIOSH is looking for site records that may help them perform more accurate dose reconstructions. The current SEC petition is written for all employees in all areas during all periods of operation. If an SEC is granted, it means that NIOSH cannot reconstruct some portion of the dose for the class of employees. Claims for workers with skin and prostate cancers are not compensated under the SEC, so those claims will still need to have dose reconstructions. Forty percent of the claims that NIOSH receives are for these excluded cancers, and the SEC means that some part of the dose cannot be reconstructed and NIOSH cannot assign as much dose for the workers with skin and prostate cancers. Approximately sixty percent of the SEC cases will be paid automatically, but 40% of the cases in the class will not get as much dose as they would have.

Once NIOSH completes the evaluation of the SEC petition, they present a Petition Evaluation Report and make a recommendation to the Advisory Board on Radiation and Worker Health (ABRWH or the Board) to either add or not add the petition to the SEC. The Board will consider the evaluation and make a recommendation to the Secretary of HHS. The Secretary will make a final decision and submit it to Congress, which has 30 days to act on it. If they do not act on the recommendation, the Secretary’s decision is final. At that point, all claims for eligible class members that are still at NIOSH awaiting dose reconstruction go back to the DOL as well as the denied claims for eligible class members. DOL decides if the cases meet the SEC class definition. The cases that fit the definition will be paid and those that do not will be returned to NIOSH for dose reconstruction.

NIOSH only has 61 claims from Brookhaven National Laboratory. It seems that people may not have heard about the program or may be worried about the consequences of filing, but if you have cancer, you should file. If you have any other disease, you should file a Part E claim. If you have cancer, you should file for Part B and Part E. Do you know why people aren’t interested?

**Worker #1:**

At this point, it's just a lack of information. That's one of the reasons why I'm here. I hope to never need this information, but I have two co-workers who passed away from cancer. They worked in areas where doses were very high and not recorded. I've been there for 30 years. These people worked there for the same amount of time. I heard about the meeting through my union. I would like to bring information back to the union and to my fellow workers at the Lab.

**Worker #2:**

Is there a way to find out if my claim is still active, and what stage it's at in the process?

**Mr. Calhoun:**

We can take your name and call you.

**Worker #3:**

I filed last May. The last letter I got about five months ago said that they were starting my dose reconstruction.

**Mr. Calhoun:**

We found another possible source of internal dose records. The records that we have are not in great shape and we are trying to get the additional information, which is why some of these are being held up. I hate that it has taken this long.

**Worker #3:**

There is just no communication.

**Mr. Calhoun:**

You should have gotten a number to call us. Are you talking about NIOSH or DOL?

**Worker #3:**

NIOSH.

**Mr. Calhoun:**

Are you just not getting a response?

**Worker #3:**

I would call on a Monday and they would call back on a Thursday.

**Ms. Breyer:**

I'll get your number before we leave.

**Mr. Calhoun:**

Sixty-one is a surprisingly low number of claims. I know that verifying employment has been a challenge, but even the number of cases sent to DOL is low compared to some of the other sites. There have been only about 200 claims sent to Labor. There have to be at least 25,000 people who have worked here since the 1940s. Forty percent of us get cancer. We have only completed 19 dose reconstructions. Six of those have been approved for compensation and 13 have been denied. The nationwide average for compensation right now is about 32%, so the payout for Brookhaven is right in that range.

**Worker #1:**

You are astonished that you have only received 61 claims. As I mentioned, a couple of my co-workers have passed away. How do the surviving family members who are no longer in touch with Brookhaven get involved? Is NIOSH looking at records?

**Mr. Calhoun:**

It is DOL that was doing the outreach meetings. NIOSH has had many worker outreach

meetings throughout the country as well. I don't know how many have been held at BNL, but I know there have been efforts to contact some of the union people, and we are still trying to get the word out.

**Worker #1:**

This is the first time I have heard of this. I have been at the Lab for 30 years.

**Mr. Calhoun:**

The program has only been around for seven years.

**Worker #1:**

If it wasn't for my union, I would not have known about the meeting. There was an article in the Brookhaven Bulletin. That's the local newspaper for the Laboratory. They announce all kinds of stuff in there. You can buy a car, you can get information on new science, and they have things that are happening in the community.

**Mr. Calhoun:**

It sounds to me that if you read an article there that said 'File a claim' ...

**Worker #1:**

The article wasn't specific. It said there was going to be a meeting with NIOSH and it was very vague.

**Worker #4:**

A lot of people don't know what NIOSH means.

**Worker #1:**

I think if it said "If you have a cancer or someone in your family died of cancer or has cancer and you worked at a DOE facility, you should go to this meeting, and you are entitled to file a claim." It didn't say that. There is a lack of communication.

**Ms. Breyer:**

That's part of the reason we put this meeting together. In a union meeting a couple of months ago, I asked about the lack of claims. The common response was that people don't want to "rock the boat and Brookhaven is a good employer." We've been out here a couple of times. DOL has as well. It has been in the Bulletin a couple of times and it just hasn't sunk in. We've tried to get people here tonight.

**Mr. Calhoun:**

There's no danger of "rocking the boat." The money doesn't come from the Lab or DOE; it all comes from DOL.

**Worker #1:**

I don't know. [Name redacted], what are your thoughts on the information that's been streaming in?

**Worker #5:**

I am [name redacted], [information redacted] at Brookhaven Lab. I actually hadn't worked at the DOE at the time of the EEOICPA and the former worker programs that have been set up. I think there was something that came out of the Monday memo recently, I think in conjunction with the rollout of the former worker program. I think there's a lot of confusion between this compensation program and the former worker program. I have been trying to help them understand the different programs and benefits.

**Mr. Calhoun:**

Back when I was at Fernald, we had to go to safety meetings. Make it a safety topic.

**Worker #1:**

I am the Safety Representative for the union, and I bring information to the people as I get it. Again, this is the first time I am hearing of this through my union. If they hadn't brought it to my attention, I probably wouldn't have read the bulletin to find out where this is.

**Mr. Calhoun:**

Are you still at the Lab?

**Worker #1:**

Yes.

**Mr. Calhoun:**

You can probably get some cards to hand out with contact information for the DOL Resource Center.

**Ms. Breyer:**

Do you have something to hang it on like a break room board?

**Worker #1:**

I can hand them out to our union personnel directly.

**Mr. Calhoun:**

We need to get it out to everybody.

**Worker #1:**

[Name redacted] has been talking with upper management and he said there's a communication lapse. Something is missing.

**Mr. Calhoun:**

You have contractors that come in. They need to be covered too.

**Ms. Breyer:**

There are contractors, subcontractors, and survivors (who need to know about EEOICPA). For Part B, the survivors include spouses, children, or grandchildren.

**Worker #1:**

In the two cases I'm thinking about, it may have to go to the children. I don't know if the spouses are still alive.

**Ms. Breyer:**

Surviving children can file an EEOICPA claim. They often don't realize they have that right. I have heard from a lot of the workers who are sick, and the medical benefits are sometimes better than the \$150,000. I talked to a lady who had worked at a DOE facility and was paying \$1,500 per month for some shots she needed – not including what the insurance was paying.

**Mr. Calhoun:**

If you are approved for payment, the medical benefits begin on the date that the claim is filed.

We still have 38 claims that are waiting on dose reconstruction. Unfortunately, some of those have been with us for three years. I'm not proud of that, but that's where it is right now. We have one SEC petition that has been filed for Brookhaven.

If an SEC is granted and your claim is not compensable through the SEC because you don't have

the right amount time in or you don't have one of the 22 cancers, you will still get a dose reconstruction. You are not out. You will either get a dose reconstruction or you will be included in the SEC if it is granted. You can also have dose reconstruction that doesn't get paid, but get paid through the SEC petition.

**Worker #1:**

The SEC is used when?

**Mr. Calhoun:**

The SEC is the Special Exposure Cohort. A petition to add Brookhaven workers to the SEC has been filed. I think the reason is for "insufficient data." It is for all areas, all periods of operation. The petition states that NIOSH cannot put an upper bound on dose reconstruction because the doses were so high and the records were so bad. Now NIOSH will evaluate whether or not dose reconstructions cannot be done for some of those workers. If so, NIOSH will recommend that we cannot do them all, or recommend that we can only do those after a certain date. The Advisory Board will agree or disagree, which will define who is added to the SEC. If you are included in the SEC and have one of the 22 listed cancers, you are automatically covered. Those who aren't covered will still get dose reconstruction.

**Worker #1:**

So, the Lab has been put on the list for an SEC.

**Mr. Calhoun:**

An application has been received for Brookhaven to add the site to the SEC. The petitioner has to be a worker, a labor organization representing current or former workers, or a survivor.

**Worker #1:**

The people I'm thinking about were employed prior to a certain time. I am assuming that it was during that time that their records were a little fuzzy, and that's why the Laboratory has been given an SEC.

**Mr. Calhoun:**

It hasn't been granted yet. We have received the petition and it is being evaluated.

**Worker #1:**

Who requests that?

**Ms. Breyer:**

We are not allowed to share that for privacy reasons.

**Worker #1:**

So, the petitioner can be anybody.

**Ms. Breyer:**

The petitioner can be an energy employee, contractor or subcontractor; survivor; a union that represents workers or former workers; or somebody authorized in writing to represent one of these groups.

**Worker #1:**

So, if I called NIOSH and said 'I think we have an overexposure'...

**Ms. Breyer:**

Yes. It is my job to work with you.

**Worker #1:**

Oh, so that has already happened.

**Mr. Calhoun:**

Yes, that has already happened and this petition is very non-specific, so we have to evaluate the whole thing.

**Worker #5:**

We've been fielding requests for records for individual claims. And just recently, they have gotten broader. Now I understand, in the context of the SEC, that you want to see what is available and what is not available.

**Mr. Calhoun:**

We have recently just begun to look at the medical records. Now I'm finding out that there are whole body counts in the medical records. Whole body counts are great because they detect many things that will allow us to derive a worst-case scenario. We will assign the maximum possible dose. With whole body counts, we can get data for many different isotopes and they are broader than other types of records, for example urinalysis.

**Mr. Cameron:**

Where is the petition on the schedule for completion of evaluation?

**Mr. Calhoun:**

I don't know that, but I know it's not going to make the 180 days. I am going to request an extension because I found data last week but it's not in useful form right now. At first we didn't find anything. I looked in Room 703 last week. I looked in 3 boxes. There are tens of boxes of records – some records that are not useful. One of the records I saw was a department report from 1962 that said, "These people have been exposed to dispersible radioactivity, here are their names, here are the radioactive isotopes. Schedule them for a whole body count." It will only be useful if I can find the whole body counts. I found urinalysis records for the Pile from 1954 that give a range of low, average, and high doses. In that case, if you worked in 1954 and we can't find your urinalysis, I can assign you the high dose. Those are the kinds of things we are looking for.

**Worker #1:**

Every year I get a piece of paper that says what my exposure is because I wear a TLD. I also get a report on lead exposure because I am a master welder and I use different metals that contain lead. Is that the type of information that you are getting?

**Mr. Calhoun:**

Unless the lead is incidentally included in your medical records, I won't get those.

**Worker #1:**

Everybody who wears a TLD and has worn a TLD should have gotten these radiation dose reports on a yearly basis. Has that been made available to you?

**Mr. Calhoun:**

Yes, in some cases, and that's my issue. That's what I am trying to verify. I know from looking last week that I have from 1985 to present for everyone. Those are even electronically coded. I know that for certain individuals I have stuff back into the early 1950s. We have to make a judgment on "was everybody monitored?" because you don't have to be a rad worker to file. They could be an administrative person who never worked in a radiation area; they are not going to have a TLD record. We need to decide if we are getting all of the records that we should.

Sometimes we don't. Let's use construction workers at Savannah River, for example: sometimes we didn't get the dosimetry reports for construction workers. This has actually been a complex-wide problem. Unmonitored construction workers get a little more dose than some other people. We will use dosimetry records from other people that worked during that time period, come up with a distribution, and apply an average dose for administrative employees or a high dose for maintenance mechanics, laborers, and other rad workers. I always try to assign more dose than I believe they received. It's always better to put somebody over the 50% mark whose cancer was not caused by radiation than to miss somebody whose was.

**Ms. Louie:**

Even though you are talking about dosimetry records and you said that you would not be interested in looking at the records for Part E, the DOL Ombudsman Office is interested in looking at all the other lab records.

**Mr. Calhoun:**

You make those requests for that? Does the DOL District Office make those requests too?

**Ms. Louie:**

I don't know what the District Office actually asks for, but I know that at the Ombudsman Office, when we hear from claimants who are having problems linking a particular illness to the job site, we want to see any kind of laboratory results they might have – whether they are for liver function tests, urinalysis tests, X rays, or any other information available, either from screening on site or their personal physicians. That can also help build a link from exposure at a work site for the list of chemicals in Site Exposure Matrix. Cancers that may not be covered under Part B may be compensated under Part E, so we are very interested in all they have to bring.

**Ms. Lave:**

The District Office does ask for those records, but it is very difficult to locate records for subcontractors, because most sites don't keep any records. But for people who actually work on the site, we request all their records.

**Ms. Louie:**

Federal workers are not covered under Part E. We're talking about the contractors and subcontractors. So if your employer didn't keep those or do health screening at all, the only option you have is to get those records from your personal physicians.

**Mr. Calhoun:**

We have received over 27,000 claims in house. We have done dose reconstructions for about 23,000 of them at least once. We often do multiple dose reconstructions for cases like skin cancer. For example, you file a claim for a basal cell carcinoma, and you don't get paid. If you get another one, you should re-file, because the more cancers you have, the higher the chances are of getting paid. Don't think that because it's just a skin cancer you shouldn't file. Malignant melanoma and basal cell carcinoma have a pretty high payout rate.

Any time an additional cancer is found, NIOSH re-works the case. Sometimes people come up with additional employment. If additional employment is verified, DOL will send that case back to us. We will redo the dose reconstruction if it's likely to increase the dose. If it's likely to decrease the dose, we won't do it just for that reason. If we are doing it for another reason, then we will redo the dose reconstruction based on all current technical basis documents. So there are a lot of times when the dose will go down based on the second dose reconstruction. It makes people mad, but it happens a lot.

NIOSH has an efficiency process. Since we have 27,000 claims to do, we have to push them out the door pretty quickly. We will apply massive overestimates to cancer cases. We will apply every possible instance of missed dose, we will maximize your internal, we will apply a hypothetical intake – we will assume that you got a massive intake on your first day of employment. If I overestimate all these doses and the probability of causation is still less than 50%, I'm done with the dose reconstruction. That may only take me four or five hours to do. If I try to do an accurate dose reconstruction, the dose is going to be way less and it could take me two or three days. So we apply this efficiency process to overestimate claims. We can also use the efficiency process to underestimate claims. If you have lung cancer, for example, I'll do the internal dose first because the internal dose will give you a higher dose to the lung than the external. If I do just the internal dose and the probability is greater than 50%, I'm not going to do the additional dose reconstruction because it will only raise the percentage.

One of the problems we see with overestimation is that, for example, a worker has one basal cell carcinoma and his claim is denied using an overestimate of his actual dose. When he gets a second skin cancer, NIOSH has to do a best estimate dose reconstruction that may lower the dose. The claim cannot be compensated using an overestimate.

**Worker #1:**

The benefit is the money, but you also mentioned healthcare.

**Mr. Calhoun:**

There is a reimbursement for the expenses incurred for the treatment of the cancer from the date that you file your claim.

**Worker #1:**

Is that included in the \$150,000?

**Mr. Calhoun:**

No, that's above and beyond. If you have a positive finding of causation in Part B, it's an automatic causation for Part E. That doesn't mean you are going to get paid, but it is potentially \$250,000 more (for maximum impairment). It's not likely, but you could end up with \$400,000. Part E has a whole different payment schedule; it's not a lump sum. They base it on impairment and early death.

**Worker #1:**

Worst case scenario: I walk into a beam line that was activated and it singes my hair off. I develop an immediate cancer because of the high dose of radiation. Obviously, I am covered under workman's compensation.

**Mr. Calhoun:**

You can't get cancer that fast from radiation. If you die from a criticality accident and you're not covered by EEOICPA. There is a five-year latency period for solid tumors. That's not just our program, that's how the epidemiology works. Cancers take that long to develop based on ionizing radiation for a solid tumor. Leukemia is different (and similar to thyroid); you get a peak probability at about three years, then the probability of causation goes way down.

There are many things that come into play with the probability of causation, such as gender and age at diagnosis. For example, a female smoker with the same dose is going to have the same probability as a male nonsmoker because the prevalence of lung cancer is much higher in men. If you have lung cancer and smoke, that also is a factor. Since smoking can contribute to lung cancer, you're going to need a higher dose to get a higher probability of causation.

**Worker #2:**

Can you explain how the 250 days relates?

**Mr. Calhoun:**

The 250 days is a requirement for the SEC. With the SEC, you either (1) have had 250 days of employment verified by DOL (longer shifts may be counted differently); or (2) have been involved in an incident, which will be a criticality or something really bad. We haven't had any of those.

**Worker #2:**

The reason I am asking is because we have contractors and subcontractors that are never on the site for that long.

**Ms. Breyer:**

The dose reconstruction looks at each worker as an individual. They look at how many days they worked (it doesn't matter how many), where they worked, their medical records, etc. The SEC looks at groups of people. If you fit into a class of workers that don't have enough individual data, you automatically are a part of the SEC, but you have to have one of the 22 specified cancers and 250 days of employment. This petition is for the whole site, but we've had other petitions that were for small groups of workers within a site.

**Worker #1:**

With radioactive material, it's the length of time you are exposed, the distance from it, and shielding. A guy could work at the lab for two weeks and have an exposure well beyond anyone who was there for 20 years.

**Mr. Calhoun:**

If there is an incident, it has to be an incident for which the dose cannot be bound. There are very few single incidents, short of a criticality, for which NIOSH cannot bound the dose. It's more difficult when you have a protracted period of time.

Also, the 250-day employment requirement may be an aggregate of time worked at Brookhaven Lab and time worked at other SEC facilities during the defined periods of employment.

**Worker #5:**

Our industrial hygienist and our colleagues in health and safety thought they recalled receiving a request from NIOSH for non-rad data. This is not your program right? So, there might be some other NIOSH program?

**Mr. Calhoun:**

That's possible.

**[Name redacted]:**

With regard to recouping medical costs for an individual, building trades workers have a Health and Welfare Fund. We see a lot of offsetting of medical costs that belong in the Worker's Compensation arena that come to our health benefits. That union fund pays all of those medical bills, minus whatever the individual was responsible for. Are funds available to recoup those medical costs for each individual case? If so, how do they do it?

**Ms. Breyer:**

The individual is compensated for any out-of-pocket expenses and they can even count mileage to and from the doctor.

*[Name redacted]:*

For example, let's say you need a chest x-ray, you go and get your co-pay and the mileage, but our union health fund pays the remaining balance. Are we, as the fund, eligible to recoup? If someone is awarded funds in Part B, can we go back and get those medical costs?

*(Remaining conversation between [name redacted] and Ms. Lave was inaudible.)*

**Ms. Lave:**

If you give me your contact information after the meeting, I'll check into that.

**Worker # 6:**

If a worker gets a settlement under Part B or Part E under this federal program, can they still apply for the state compensation?

**Ms. Lave:**

Under Part E, any compensation received from the state for the same medical condition is offset, so it will reduce the compensation.

Mr. Calhoun thanked the attendees and adjourned the meeting at 7:20 p.m.