CENTERS FOR DISEASE CONTROL AND PREVENTION

NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH

ADVISORY BOARD ON RADIATION AND WORKER HEALTH

PINELLAS PLANT WORK GROUP MEETING

MONDAY, NOVEMBER 20, 2023

The meeting convened at 11:01 A.M. EST

via teleconference/videoconference,

Bradley Clawson, Chair, presiding.

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Members Present:

Bradley Clawson, Member

Henry Anderson, Chair

Josie Beach, Member

Nicole Martinez, Member

Registered and/or Public Comment Participants:

Rashaun Roberts, Designated Federal Official

Nancy Adams, NIOSH contractor

Bob Barton, SC&A

Ron Buchanan, SC&A

Grady Calhoun, DCAS

Madeline Cook, DCAS

Denise DeGarmo, Public

Rose Gogliotti, SC&A

Joe Guido, NIOSH/ORAUT

Donna Hand, Public

Amy Mangel, SC&A

Stephen Ostrow, SC&A

Angie Palau, ORAUT

David Pompa, Board Member

Michael Rafke, HHS

LaVon Rutherford, DCAS

Mutty Sharfi, ORAUT

Tim Taulbee, DCAS

# TABLE OF CONTENTS

PROCEEDINGS

(11:01 A.M.)

## WELCOME AND ROLL CALL

DR. ROBERTS: So, good morning, everybody. I'm Rashaun Roberts. I'm the designated federal official for the Advisory Board on Radiation and Worker Health, and this is a meeting of the Pinellas work group. All of the materials for today's meeting are posted on the NIOSH website for this program under schedule of public meetings. You go to calendar year 2023 and click on the tab for November to find those materials. If you are participating by telephone, you can go to the website to access all the materials, and you can follow along with the presentations. The materials for today's meeting were provided to work group members and to staff prior to this meeting.

As you know, this meeting is being conducted by telephone and by Zoom. On the website, there's a Zoom link which will enable you to hear and watch the presentations through Zoom. If you've chosen to receive audio through Zoom, you should be able to speak to the group and hear the presentations. If you're not speaking, please be sure to select and stay on mute by muting the microphone. That's usually located on the lower left-hand corner of your screen.

If you have dialed in, you'll be only -- you'll only be able to speak and hear the presentations through the telephone line. So, please make sure your phone stays muted unless you're speaking. If you don't have a mute button, press star six to mute. If you need to take yourself off, press star

six again. Also, if you're only participating by telephone, we're unable to see your name, so please identify yourself before providing comments or questions.

So, before I get into roll call, let's address conflict of interest. And I can speak to that with respect to the members of the Board who sit on this work group who have all been determined not to have any conflicts of interest, so they don't need to address this in the roll call, but others should.

So, with that, let me start the roll call for members of the Board who are on the work group, starting with the chair, Clawson.

CHAIR CLAWSON: I am here.

DR. ROBERTS: Anderson?

MEMBER ANDERSON: Present.

DR. ROBERTS: Beach?

MEMBER BEACH: I'm here.

DR. ROBERTS: And Martinez?

MEMBER MARTINEZ: I'm here.

DR. ROBERTS: Okay. Let's move on to the roll call for others. As you register your attendance, please sure -- be sure to acknowledge or make known any conflicts that may be relevant to this working group meeting and recuse yourself from discussion accordingly. So, let's start with NIOSH/ORAUT.

MR. CALHOUN: This is Grady, no conflicts for this meeting.

DR. TAULBEE: This is Tim Taulbee. No conflicts at Pinellas.

MS. COOK: This is Madeline Cook. No conflicts.

MR. NELSON: This is Chuck Nelson. No conflicts at Pinellas.

DR. ROBERTS: Anyone else NIOSH/ORAUT?

MR. GUIDO: This is Joe Guido. No conflicts at Pinellas.

DR. ROBERTS: Let's move to SC&A.

DR. OSTROW: Steve Ostrow. No conflict.

MS. MANGEL: Amy Mangel. No conflicts at Pinellas.

MS. GOGLIOTTI: Rose Gogliotti. No conflicts.

DR. BUCHANAN: Ron Buchanan. No conflicts at Pinellas.

MR. BARTON: Bob Barton. No conflicts.

DR. ROBERTS: Anyone else for SC&A? Okay. Let's move on to HHS and contractors.

MR. RAFKEY: Michael Rafkey. No conflicts.

MS. ADAMS: Nancy Adams, NIOSH contractors. No conflicts.

DR. ROBERTS: Anyone else from HHS or any con -- additional contractors? If not, anyone with the departments, DOE, DOL, any other departments? Okay. And last but not least, are there any members of the public who'd like to register their attendance?

DR. DEGARMO: Denise DeGarmo, authorized representative of the Pinellas petition.

UNIDENTIFIED SPEAKER: Good morning, I am --

MS. HAND: Donna Hand.

DR. ROBERTS: Okay. I heard Donna Hand.

MS. HAND: Donna Hand, yes.

DR. ROBERTS: Okay. Any other members of the public who'd like to register attendance now?

DR. ROBERTS: Well, thank you so much and welcome again to you

all. Before we officially move into the meeting, just a reminder, to keep things running smoothly throughout the meeting, please make sure your phone is on mute unless you need to speak. Or if you're on Zoom, make sure that you're on mute. So, for those on Zoom, the mute button is usually on the lower left-hand side of the screen, and then for the telephone, press star six to mute. Press star six again to unmute. So, with that, let's get started, and I will turn the meeting over to the chair of the group, Brad Clawson.

CHAIR CLAWSON: Thank you, Rashaun. I appreciate that. It's good to be able to see everybody. I kind of want to -- it's been a long time since Pinellas as work -- as (indiscernible) -- as a work group. There's gonna be a presentation by NIOSH, which is coming up right next to kinda refresh our minds on this. I would like to give a word of appreciation for Phil Schofield who was the previous chair for this Pinellas. With that being said, I'm going to turn it over to NIOSH and allow them -- they've got their first presentation to be able to go, I believe it's green, that's going to do that. So, I'll turn it over to NIOSH and let them do that.

## NIOSH/DCAS PRESENTATION: PETITION SPECIAL EXPOSURE COHORT (SEC)-00256 PINELLAS PLANT SEC EVALUATION REPORT (ER)

MS. COOK: Okay. I'm gonna share my screen.

UNIDENTIFIED SPEAKER: We can see it, Maddie.

MS. COOK: Okay. All right. So, my name is Madeline Cook. I am the DCAS health physics lead for the Pinellas Plant. As Brad mentioned, Megan

Lobaugh, Dr. Megan Lobaugh, presented this presentation at the December 2021 Board meeting. So, I'm going to be re-presenting the SEC-256 Pinellas Plant evaluation report as a refresher for you guys today. I'd like to thank Dr. Megan Lobaugh as well as my ORAUT counterparts, Doug Guido and Pat McCloskey. With that, let's get started.

So, a little bit of information about the Pinellas Plant. I have an aerial picture here on the right-hand (sic) of the slide. It was located on an approximately 100-acre site in Clearwater, Florida situated between Largo and Pinellas Park. They produced high-technology, nuclear-weapons-related components. And here I have three phases of their time line starting with operations in 1957 through September 1994, at which point the plant changed its methods over to D&D, and that started in October of 1994 through 1997. And then there were two remediation periods in 1999 and then again in 2008 through 2009. And this remediation, it was due to organic compounds. No radioactive material was found.

Some more information about Pinellas. On the right, I have a map of the plant. At its peak, Pinellas employed around 2000 people. And for the first 10 years, they primarily manufactured neutron generators, after which they expanded into producing additional support components such as specialty capacitors, lithium ambient batteries, vacuum switch tubes, and radioisotope-powered thermo electric generators, RTGS.

So, getting into information on the SEC-256 petition, we received an 8313 petition on December 16th of 2019. We held a couple of consultation calls with the petitioner and received revisions and May and August of 2020. The primary topic of those calls was that the temporary plant in St.

Petersburg, which operated prior to 1957 is not covered under EEOICPA. So, the final petitioner-requested class was all employees who worked in any area of Pinellas in Largo, Florida from January 1957 through December of 1997. And with each revision of the petition we received, the petitioner also provided extensive supporting documentation.

Some information on the petition qualification, the SEC-256 Pinellas petition qualified under the F.4 basis, which is a scientific or technical report issued by a government agency or published in a peer-reviewed journal that identifies information, dosimetry information, or related information that is unavailable. So, the petition referenced this Tiger Team assessment. The Tiger Team assessed conditions during 1988 to 1989. And it pointed out that there was possibly a noncompliance issue with employees submitting bioassay samples. And so, this period following the Tiger Team assessment is not applicable to this F.4 basis. And so, that's why the class defined by NIOSH for further evaluation has this endpoint of December 31, 1990.

So again, this is an older presentation, and this information is still as of May 3, 2021, and might be slightly different.

But at that point, we had received a total of 503 total claims for Pinellas. Of those, 496 were for employees who worked during this evaluated period, and 456 received completed dose reconstructions. These last two numbers are with regards to dosimetry information we had for those claims, so 279 had internal dose records and 277 had external dose records.

Getting into the internal radiological exposure sources at Pinellas, the primary of that being tritium, it was mostly in the form of tritiated water although also present as tritium gas, organically-bound tritium and metal

tritides. Not considered to be internal dose concerns, although present at Pinellas was Proton-85, as it's a noble gas. Plutonium was triply encapsulated, uranium was contained within stainless steel tritium storage beds, as well as borosilicate glass. Carbon 14 was used in negligible quantities for labeling. Nickel-63 was contained within vacuum tubes, and the plant also had other sealed sources including Cesium-137.

So, some information on monitoring data we have for internal exposures at Pinellas. Again, given that the primary source was tritium, the plant did tritium bioassay sampling, and this was based on an employee's exposure potential. So, those with higher exposure potential were on a routine scheduled basis of submitting samples daily or on each performance, and those with lower exposure potential would submit samples on a weekly or monthly basis. And we have detailed internal dose data for all years under evaluation. The plan also did plutonium urine bioassay sampling, RTG worker samples on an annual basis. We also have access to area air monitoring as well as routine smear survey monitoring for tritium in tritium areas and plutonium in RTG area.

Here is a summary of panelist plant internal monitoring. You'll see that this is for the period of '86 through '95; however, we have data for all years. This was just What was available in these formats of total dose and person mrem and highest individual dose, but again, we do have all data available and it's used industry construction as well as our unmonitored approach.

Moving on to external radiological exposure sources at Pinellas, for photon exposures, sources would have been testing of neutron tubes and

generators, RTG work, the ion accelerator, and Proton-85 leaked testing. The betas again, Krypton-85 leak-testing incidents as well as X-ray diffraction and electron beam device incidents. Although tritium is a beta emitter, because it's a low-beta emitter, this isn't considered an external-dose hazard. And again, Carbon-14 quantities were negligible. And then neutron exposure sources, there was the neutron generator testing, the RTGS, and ion accelerator.

Monitoring information we have for external exposures at Pinellas, the plant monitored workers who had potential for radiation exposure. We have individual monitoring data available to NIOSH for the entire evaluated period. And we also have monitoring data available to us through the form of direct radiation surveys, work support surveys, and area film monitoring.

So, the same thing applies for this table. This is a summary of Pinellas Plant external monitoring for '85 through '95. Again, we have data outside of these periods, just not presented in these dose statistics.

So, some information on the qualifying petition basis. Again, this qualified on the F.4 basis. The petition referenced this Tiger Team assessment, which had the following points here. These two findings were listed. However, there was no supporting information provided in that report nor references, so we had to go off of what we had available to us through data capture within the SRDB, and we conducted interviews as well.

So, this first finding of the Pinellas Tiger Team report was that Pinellas estimated about 20 percent of the personnel termination bioassay samples were not submitted in 1988. Pinellas responded to this finding that termination samples were only required for those workers who had exposure

potential. And so, in response to this finding, they updated their termination checklists. Additionally, termination bioassay data are available to NIOSH. And due to the short biological half-life of tritium, termination samples are only really useful if the employee had had an exposure just prior to submitting that termination sample. So, with that NIOSH, finds dose reconstruction feasible.

The second point here, of 70 percent of required monthly samples and 35 percent of required weekly samples not being submitted. Again, we didn't have references for this, so we conducted interviews with 16 former workers, and the general consensus being that Pinellas employees were generally compliant. No one was aware of this noncompliance issue. And when asked for ideas as to why monitoring compliance may have been an issue, we were given a broad range of explanations. The simplest of that being an employee may have just been on leave or vacation and not in to provide their sample that day. Or another given explanation was that employees with nonroutine entries into tritium areas were placed on routine monitoring. NIOSH also reviewed NOCTS claims, and we took a look at job titles where you would expect exposure potential, including maintenance workers, and verified that they were, in fact, monitored.

So more on this 70 percent and 35 percent issue is, in response to the Tiger Team report, the Pinellas Plant began tracking individual compliance. And we see in health physics and ALARA reports that they were able to improve compliance with submitting bioassay samples. So, with this improved compliance, there was no increase in site wide or individual internal doses signifying that there was no significant internal dose that went

unmonitored.

Additionally, the most highly exposed workers, those on the daily and weekly monitoring frequencies, were more compliant than those on the monthly frequencies. This would indicate that the dataset available for monitored workers is likely biased high. However, it's biased high, but doses for monitored workers were still very low. If you look at the external TBD Attachment B, you'll see that 80 percent of monitored workers received annual whole-body doses under 20 millirem and 95 percent under 100 millirem. So, with that, we can bound dose for both monitored and unmonitored workers.

Some information on our current unmonitored approach, in the TBD we assign 100 millirem. This is based on the 95th percentile whole-body dose data for monitored workers. This whole-body data consists of both external and tritium internal. Something we did find during our evaluation is we should update the internal TBD to reflect work group conversations where it was decided that this whole-body dose would apply to unmonitored to internal doses as well.

Another thing we'll be updating is an approach to assigned dose for workers who had monitoring. So, with that, NIOSH finds dose reconstruction is feasible. Here is a summary table. NIOSH found dose reconstruction feasible for tritium as well as all external sources of exposure at Pinellas.

Questions?

CHAIR CLAWSON: No. Thanks for the review on that. And is it pronounced Maddie?

MS. COOK: Yes.

CHAIR CLAWSON: Okay. I just wanted to make sure. Thank you, Maddie. I appreciate that. So, we'll open this up for any question from the work group. I know that we have some new work group members on here. That's why we've kind of done this background a little bit. Is there any question from any of the work group members?

MEMBER BEACH: Brad, this is Josie. None from me at this time.

CHAIR CLAWSON: Okay.

MEMBER MARTINEZ: None for me. This is Nicole.

CHAIR CLAWSON: Okay, Nicole, appreciate that.

MEMBER ANDERSON: Yeah, I -- I don't have any either.

CHAIR CLAWSON: Okay, that sounds good. Well, with that being said, I'll turn it over to S and -- SC&A for their presentation, their interim presentation, and we'll go from there. I believe it is you, Steve.

DR. OSTROW: That's me. Yeah, hang on. Let me get the presentation up here.

## SC&A PRESENTATION: "INTERIM SC&A REVIEW OF THE SEC EVALUATION REPORT FOR PETITION SEC-00256: PINELLAS PLANT"

DR. OSTROW: Okay. Can everybody see it?

CHAIR CLAWSON: Yes, Steve. This is Brad.

DR. OSTROW: Okay, great. Okay. We have an interesting situation where Maddie presented the -- the SEC ER, I'm going to present our response to that, and then Maddie is going to present after I finish her response to our response. But I already -- I read Maddie's response, so I

incorporated some of that verbally into this, so you'll get a full picture today of everything. Right.

I just wanted to mention that, as usual, you know, I didn't do this alone. I had a lot of participation from Bob Barton, Nicole Briggs, Ron Buchanan, and Rose Gogliotti, so I can't take all the credit. I also can't take all the brain -- blame, I guess.

Okay. So, let's go. Okay. And I'm going to quickly through some of the slides because Maddie covered that already. A lot of the background material. Just mention our report, in addition to the main body, we had three appendices, and we stuck on. The Appendix A, we did a very thorough review of the actual DOE Tiger Team report. And we included the parts that we thought were relevant to the SEC. Just mention that the DOE Tiger Team report is really large, but a lot of it doesn't -- is not really that relevant to what we're doing, because it covers a lot of management or site issues, and so forth, rather than technical issues. Also, DOE didn't pick on Pinellas in the 1990s, because -- if the older people here can remember that DOE reviewed entire complex around that time, the different sites and Pinellas was just one of them. The -- we also have Appendix B, where we -- we had looked through all the health physics incident reports that involved the potential or actual radiological release contamination or personal exposure. So, Appendix B, we summarized everything. And I think we got everything that was there. Appendix C, these are the former worker interview notes. We went through all the worker -- all the worker nodes and summarized them in Appendix C, taking care not to actually include any identifying information for these people.

Okay. Background, we issued this report on June 16th of this year. And just say that it was current as of about March. That's when we stopped looking at stuff and started writing, and then we have to go through our internal review cycle. And then it's reviewed by DOE and so forth. So, it's about three-month lag from the time we stop writing till it actually gets out of the door. And I assume what NIOSH has a similar schedule when they do their reports.

So, the news is -- main takeaway -- we had no findings. You know, findings of serious things, but we had 13 observations. And I'll just remind people that this is an interim review. Why is it -- why do we call it interim? Because there were still stuff that we hadn't reviewed that was still coming in the door after March of 2023. And for example, we just got a bunch of petitioner documents that Rashaun forwarded to us, maybe a week ago that we've looked at, but we haven't actually evaluated it yet. So, that's why it's -- it's interim. It isn't that we were trying to hedge our bets or something; there was a real reason for it.

So, the report, what's in the content? It summarizes the plant's history inside information, discusses radiation sources and types. Those two items auto over quickly, because the Board members probably read about that a lot of times already. Maddie summarized that also.

We looked at radiation monitoring procedures and compliance pre and post 1990 Tiger Team report. The Tiger Team report 1990 really divided the entire period into two parts. Before the Tiger Team and after the Tiger Team, because as we've been noted before, the Pinellas Plant's done a lot of remedial improvement actions after the Tiger Team report. And the main

thing is, the last one, it evaluates whether the ER adequately recognizes and addresses all potential concerns, incorporates worker interview information, and accounts for all relevant reported radiological incidents.

So, this will go over fast, because it was just covered by NIOSH. Constructed in 1956, operated through 1994 by GE, and it was originally intended to manufacture neutron generators. After 10 years, expanded to include other specialized equipment, including the RTGS. At peak operations, it employed about 2000 people. The numbers went up from year to year, up and down. D&D activities from 1994 onward and remediation activities 1999, 2008 and 2009. This -- I'm not gonna read through, but it's -- I just put it down for -- in case anybody's interested in background information that the original SEC was submitted by -- to NIOSH in 2019. It was revised twice. 2020, NIOSH qualified the petition, did the petition evaluation report in 2021, and we -- we were -- it was discussed a couple of times, different venues. And in June of 2023, we issued our interim report.

NIOSH determined a petition qualified for evaluation, and I'm not going to read all of this because it was just discussed. NIOSH terminated the SEC class on the end of two -- 1990 rather -- 1997's proposal in the petition, and the last statement is from what NIOSH defined as the class. So, the beginning of the plant operations through December 31, 1990.

Conclusion. NIOSH (indiscernible) the conclusion they can reconstruct the doses during the proposed SEC period because they have sufficient information tests to make the maximum dose, and NIOSH doesn't recommend adding the -- the class to the SEC.

All right. So, that's background. Now, what we've actually done, and one of the problems is, you know, I did these slides awhile back and I had second thoughts about some of the things we've written -- we wrote. Okay. The first point, we believe that it may be possible to bound the doses. What does it mean by may? That -- that's a little bit of a week statement that our conclusion was at least so far interim, there's no showstoppers. We didn't find anything that would preclude NIOSH from reconstructing the doses adequately. That was our finding, main finding.

And the second one, we note that has yet to be demonstrated as suitable co-exposure model can be developed for other soluble tritium compounds. This was a -- becomes a little bit clearer later in the presentation.

This I'll mention, the -- obviously, the dose reconstruction methodology depends on the technical basis documents. So -- so, I had to -- we spent a little time looking at the TBDs and their history. The original set of TBDs were produced in 2005 and 2011. SC&A reviewed the TBDs in 2006, identified 11 primary and eight secondary issues. NIOSH revised the TBDs beginning in 2011.

And this is a misstatement, that there was a Board meeting, big Board meeting. We said that the primary and secondary issues had been adequately resolved except primary issue two, which concerns stable met -- metal tritides, which is in the billions. And after NIOSH saw the slides, just recently, a couple of days ago, it was brought to my attention, Maddie did, very politely, corrected what I wrote here. The -- it turns out that buried in the large transcript from that meeting, the Board actually did close this

issue. So, as of now, there are no open issues in the TBDs, and in particular, in the internal dosimetry TBD. So, that -- that's a correction, because this was an issue that was closed.

So, the conclusion from this is that the TBD, which is the main document, docs -- documents that NIOSH uses with dose reconstruction, we reviewed it, the Board approved it, and we concur with that. So, that's -- they're good.

Next, this was just covered. You know, a couple source characterizations. You just went through that. And it's divided into two classes. The seal -- radioactive materials can be sealed or unsealed sources, and the radioactive materials, the difference is they're always radioactive versus radiation generators. Those are ones that are active only when they're turned on. For example, the -- different equipment, like neutron generators, which contain the tritium targets, they're only producing neutrons when they're actually switched on. So, the these are the different sources that could be there that we just went through.

This also is just going through the external -- potential external exposures, photon, beta to the electrons, and neutrons. And the ER claims that the -- there is a lack of external exposure potential, which we agree about. This is the reason that the majority of the work performed since -- the majority of the work performed through the planet didn't involve exposures to external sources of radiation, that the -- many workers were not monitored for external exposures. So, the main issue, or the main thing that we're looking at, is the internal exposures. And this -- our potential radioisotope exposures. Tritium is the only real source of external exposure

wrist -- risk. And we found various favorable approaches that NIOSH took that -- for example, they calculate exposures to both 100 percent tritium gas and 100 percent organically bound tritium, and they select the most claimant favorable. And this is a good one. That it assumes that workers exposed to insoluble tritium compounds and metal tritides were also exposed to soluble tritium which was monitored. So that -- so if a -- if a person was monitored for the soluble tritium, they would automatically assume that the metal tritides could be (indiscernible) to them. That's a very claimant-favorable approach.

Since tritium is the main source of internal exposure, we went into that in a little bit more detail or a lot more detail. This tritium exposure has been a subject of concern since our earliest TBD reviews which had two primary and one secondary issues on tritium. And, okay, the second bullet, again, I have to correct that we closed -- we ended up after a lot of discussions, papers, reviews, meetings, that we closed all the issues relevant to the TBDs and in particular, tritium.

Just to refresh people's memory, what is this stable metal trap -- tritide issue anyway. This is something else important and we closed it, but it bears a little bit of discussion. So, what is stable metal tri tritides? And this is a quotation here from OTIB-0066, which was specially written to calculate -- how to calculate doses from intakes of special tritium compounds. So, stable is used to indicate that tritium is not easily separated from the matrix in which is bound. The material is more strongly retained in the lung -- in the lungs, resulting in much smaller fractions of the intake excreted in the urine. So, the -- you can have metal tritides in the in

the lungs, but you don't see it in the urine analysis. So, therefore, a relatively small amount of tritium in the urine sample may indicate a large intake of a special stable tritium.

OTIB-066, rev. 1, SC&A reviewed it under the purview of the procedure review group, and we accepted it, and the Board accepted. So -- so, we concluded from this that the methodology that NIOSH uses to calculate tritium doses is acceptable. The -- okay the other thing -- the other isotopes, uranium, we looked at, and concluded that the uranium is not an internal hazard. Various thing -- some of these were settled before but we revisit -- we revisited this when we're doing our SEC review, just for completeness. So, we concluded that uranium was not an issue.

Plutonium has been brought up a couple of times as a potential issue. And we -- just for that reason, we decided to revisit it for this review now. And we concluded that the potential for plutonium intakes has been adequately addressed and resolved. So, there's no more issues as far as we're concerned on that.

Carbon-14, looked at it also, and we believe unless there's new information identified, the potential for Carbon-14 intake has been resolved, and it doesn't contribute significantly internal dose hazard onsite. Krypton-85 internal exposure potential. Here again, the ER asserts that Krypton-85 is not a significant internal exposure hazard. We reviewed it and concur with that also. Strontium-90, Cobalt-60, and Thallium-204, the brilliant -- this was a petitioner submittal that brought this up. And they mentioned beryllium. And just -- say beryllium is not -- is not in a -- a radionuclide and it's a -- it's a hazard but not radio -- radiological hazard. We didn't find that

that -- the presence of these three radionuclides in the inventory represents a sufficient internal exposure risk -- risk and should have been monitored or -- by Pinellas, and we give several reasons, and we concur with NIOSH in that, that these isotopes are not significant.

One of the things we looked at in our report, we reviewed the radiation monitoring data available, two time periods; before they after the Tiger Team movement. For the pre Tiger Team, the ER states, both external and internal dosimetry results are available and available data extends beyond 1981. DOE records -- the claimant records provided by DOE generally include both internal and external dosimetry -- dosimetry results. Pinellas monitored potentially exposed personnel, and NIOSH did not find indication of lack of monitoring for the class under evaluation. SC&A didn't either. And NIOSH concludes they have sufficient data to perform dose reconstructions.

Here's one of the caveats I mentioned that -- why we can't, you know, totally bless the ER at this stage. When we did our review, as I mentioned, we finished it in March, we didn't have access to the searchable NOCTS database to analyze the claimant data. We do the work around that we -- we manually review the list of about 2500 documents made available by NIOSH, but we couldn't go through the searchable -- we didn't have access to a searchable database at that time. So, we reviewed the documents that, based on their titles, could potentially contain bioassay or external dose data. So, we did that manually. And we found the data contained tritium and some plutonium bioassay results, as well as external monitoring records.

And the last point on the slide, SC&A could not make a definitive judgment on the adequacy of the internal dosimetry data during the SEC period at the time of this review. As I mentioned, I think one of my first slides, we didn't find any showstoppers, but we didn't find any -- or we could investigate enough data -- completely enough that we could say definitively that everything is okay.

The post SEC period is one -- are the reasons that NIOSH ended the petitioner-requested SEC period at the end of 1990 is because Pinellas significantly improved its monitoring -- monitoring performance post Tiger Team. And we looked at the ALARA reports, a lot of them for the 1990 and 1995 period, and it showed that improvements in compliance -- for example, in 1990 report, which was just after the Tiger Team report, -- the Tiger Team report actually covered, I think 1989 sampling -- surveillance I mean, pro -- the bioassay program average participation was up to 78 percent. But they had set the goal of 80 percent. But this is not quite there, but a very good indication that things were getting better.

So, after we looked at the available bioassay data, we have two observations, and these are all expanded in our report. These are -- the slides just give an indication of what's there. The -- one was that -- there wasn't -- we couldn't -- at least we didn't have a lot of bioassay records for 1998 to 1990. There were a few records, about three to 10 claimants per year available, for about 1700 employees, which we thought was, like, a lack of records. And this -- there was -- and this was observed by the Tiger Team, and there was a problem being -- there was bioassay scheduled noncompliance. So, that's sort of a subjective judgment to be made by the

Board perhaps, like, how good of compliance you need. The -- I think NIOSH makes the point that the people most likely to have higher exposures were better at complying with the bioassay schedule. And the people who didn't have much opportunity to get exposed because of where they worked, weren't as compliant.

All right. As I mentioned, we went through in detail the Tiger Team and just listing some of the observations that the Tiger Team made that may be relevant. For example, and the -- and some are good, some are bad. The observation six, Tiger Team praised the overall radiological protection program. Observation seven, the bioassay sampling frequency requirements weren't followed. Observation eight, the contamination controls were generally good. Observation nine, the sampling -- bioassay sampling program implementation was inadequate. Observation 10, which is just a general comment, why are there deficiencies. And the Tiger Team made two statements. One, they said the mindset of production -- so, this was a time when they were -- the plant was focused on -- on production to produce the neutron generators etc., and also, the other mindset was, there wasn't any unusual risks at Pinellas. This was sort of typical of the whole DOE concept -- complex. And the observations 11 is positive. The transition year 1990 after the assessment led to overall reduced exposures following.

CATI reports, we went through all of them. Those are the computer-assisted telephone interviews. So, at the time we went through 490 available CATI reports, all of them -- all of them we could find for indications of internal/external monitoring and incidents and the follow ups. We didn't have access to individual claimant monitoring files to compare CATI

statements to relevant or dosimetry records. As a follow up in the future, it might be a good idea to do that.

And this is some statistics here that we did. Sixteen percent of the CATIs indicate the EE was involved in a radiological incident; 38 percent of the CATIs state the EE received your -- urinalysis and after the incident. Of the caddies that were completed with the EEs themselves, not their, you know, family members, 46 percent recalled being internally monitored and 45 percent, externally monitored. Twenty-seven percent did not recall if they were involved in an incident.

So, we came to conclusion here. The number of employees involved in incidents might be underestimated, if you use the CATI information alone. Part of the reason is the employees often didn't really remember or know if they were involved in an incident or not.

Dose reconstruction cases that -- as I mentioned, we didn't have access to the -- the full set of files that we could examine, but, as you know, part of our job, SC&A, we look at a dose reconstruction, so we review them. So, as part of our work, we had reviewed a few Pinellas cases. So, we -- we went ahead and looked at the cases that we had in our possession and compared their monitoring history and compare them to the new CATI reports and the internal monitoring NOCTUS history. So, due to the limited available data, this comparison can't be used to tell if the records are complete. But it -- it gives you some indication, at least in these cases, to identify the presence or absence of records in their files. And our conclusion is for this limited sample, internal -- internal monitoring records match the claimant recollection supporting the CATI. So that's a -- so, that's a good

thing.

Record keeping. So, we reviewed -- reviewed the -- NIOSH's procedure for obtaining claimant records, and this -- NIOSH is aware about -- they're the ones who told us this in one of the former meetings, that occasionally other claimants' records and other information are not contained in the files that DOE sends to NIOSH following the record request from NIOSH. So, the -- NIOSH is aware of that, and they have other sources of information, so they're working in their whole system for gathering information.

The -- there is -- NIOSH has placed -- is still placing these documents in the SRDB system. That means that there is a lot of information out there. NIOSH did some data captures, put a ton of information in the SRDB system, which was not totally functional until fairly recently. When NIOSH receives new information for noncompensated complete dose reconstruction, NIOSH reworks the case to ascertain any impacts. So, this is the -- business as usual. When NIOSH gets new information, they look and see who -- who is affected by it, the dose reconstructions. If the person's noncompensated, NIOSH reworks the case, and SC&A ends up reviewing it eventually.

So, documented communications with former workers. SC&A evaluated their available interview summaries to determine if they contain information pertinent to the SEC evaluations. And Appendix C of our report summarizes these interviews. The -- just some general comments. The interviews reflect the total period Pinellas operated, so encompass a broad range of professions. Where you -- by looking at that, one of our observations, 12, SC&A believes that this -- that the recollection --

recollection reported in the interviews in general are consistent with those in the ER. So, we don't have any -- we didn't find any cases where the ER says one thing, but some -- one of the employees says oh, no, it wasn't like that at all or this happened. We found it generally consistent.

An important part of our review was to see if the petition your concerns were adequately addressed in the ER, and that's important. So, we looked at that. The ER itself identifies and addresses nine different concerns, which were extracted from the SEC petition. We also examined the petition and characterize the exact same set of concerns into 12 different issues. We had the little bit different take on it than NIOSH did, but it's the same material.

So, we determined this -- and this is important -- that each of the 12 issues was addressed by NIOSH to various extents in the ER, although not always explicitly point by point. So, the ER has all the concerns covered, but it doesn't list them one -- always, you know, one by one. So, it's not always explicit, but they're there.

And we found in general that NIOSH -- their general, their normal procedure, is to say if they have doubts about job titles, work locations, and work processes, the -- they assigned the parameters that yield the highest doses. That's -- we've reviewed these procedures before.

Additional petitioner concerns. These are concerns that came out after the petitions -- the petitions made. And the petitioners or their representatives made several additional submittals after the petitioner was received up to and beyond the time SC&A was preparing this review. As I mentioned before, we were just -- we just received the latest set of

petitioner documents in support of this meeting, like about a week ago. And although we took a look at it, we haven't had any formal review of it. So, they're -- they keep coming in.

We took a preliminary look at the submittals made after the December 2022 Board meeting, which had a session on Pinellas' petition, and we looked up to the beginning of March 2023. So, we wouldn't be on the petitioner documents that were in the ER, so we did it up to what was existing in 2023. And just to mention, what are these concerns. I'm not going to go through them all, but there was subjects such as leaking plutonium, multiple myeloma study, history of radiological incident report, metal tritides, the occupational internal dose TBD, the Pinellas Plant environmental baseline report, a request to investigate a report on cancer incidences -- incidents in Pinellas County, and some nontechnical -- that were not relevant to this discussion -- communications. So, we've looked at that, and it's in our report.

Just to summarize now our observations, we had no findings with 13 observations. The main concern that we've had or focus of our concern is the bioassay program requirements, compliance with them, before the Tiger Team assessment in 1990. And this all will take you through quickly. The -- this was an observation that we looked at the neutron generator production from 1973 to 1993 and found it fairly steady. It went up or down from year to year, but from the limited information we have, we couldn't find much information on the production but only because it's -- it's not available. But for what we did find, we found it fairly steady.

This one got special -- special -- the tritium contamination -- we ended

up concurring, and the work group concurred, that the NIOSH model is sufficiently accurate and claimant favorable, and this was accepted -- as I mentioned before, the tritium methodology was accepted by the Board and by us.

This -- the ER doesn't mention that OTIB-66, revision one -- this -- NIOSH, I think, will reference the OTIB -- they committed to referencing the OTIB in the next internal dosimetry TBD (indiscernible). Lack of bioassay records, which I just mentioned a couple of minutes ago, that they -- despite between the 129 and 201 employees reported bioassay for that period. They only have monitor -- monitoring records for a small bunch per year. I think NIOSH responded to that, and Maddie can talk about that later, that the -- NIOSH actually used a more complete dataset for the dose reconstruction than for the SEC ER, so there's more records available.

Five -- observation five, this was noted that noncompliance by the plant, that was one of the main Tiger Teams comments. Observation six is praise the overall of the -- the level of organizations are receiving adequate radiological protection. The bioassay sampling frequency was not followed, which is noticed by the Tiger -- noted by the Tiger Team. I think NIOSH agrees with us on that. Observation eight, contamination controls were generally good.

Observation nine, they were bite -- their bioassay sampling program implementation inadequate -- inadequacies -- so, not just the -- the program itself, but also the implementation part of it -- this is one of the bases of the SEC petition of NIOSH qualifying the petition that's noted.

Observation 10 NIOSH discussed moving forward. This is like a

mindset, why they might have had problems in the plant. The observation 11 was noteworthy that the transition -- after the transition year of 1990, after the Tiger Team assessment, lead to overall reduced exposures, which was sort of interesting that more people were being assessed than before, a higher percentage, but the overall exposures for the plant went down, which means you can conclude from that, that -- this gradually decreasing trend that the program basically captured the dosimetry records of the people who had the largest exposures. And increasing the compliance with the monitoring program didn't find people who had exposures but were monitored.

So, our conclusions from this, we didn't find any indication that there are any issues with exposure records that will prevent dose -- dose reconstructions the SEC period nor for the post SEC period, so we didn't find anything. As I mentioned, that -- the fact we didn't find anything doesn't mean it couldn't possibly exist, but in our -- an interim report, that's what we have.

Observation 12, the ER is consistent with the interview records, as I mentioned before, and NIOSH concurs. Observation 13 -- that they were -- the plant was diligent in following up with contamination-related incidents, and we concur with this conclusion also, as far as we could see.

And the -- this slide, we thought we'd throw that in -- this suggests potential path forward. And the path forward, there is -- we didn't evaluate all the data from the data collection activities that were made available after the report was produced. There were two really large data captures, and we didn't have the opportunity to review it all. Going forward, to respond to

any new reports, presentations, etc., that come, and including the new submittals by the petitioners' representatives -- and finally, if the Board approves, come out of this to revise the ER review, incorporating all the information that we have, eventually.

And that's the end to -- to a long-winded report. And I'll take any questions that people may have.

MEMBER BEACH: Brad, you okay if I ask a question?

CHAIR CLAWSON: Sure, go ahead.

MEMBER BEACH: I have, kind of, a two-part on that last slide, the moving forward. Do you have --

DR. OSTROW: Oh, okay, --

MEMBER BEACH: Do you have -- Steve, do you have everything you need at this time to review the new information and how -- what's your time frame on it?

DR. OSTROW: Well, I think we have all that we have, because NIOSH put all the information available on the, you know, virtual volumes. And you can see this. So, we can look at it all. Time frame -- I hate to make a guess now without actually looking to see how much data we have.

Bob Barton, are you there? Do you have any thoughts on this?

MR. BARTON: Yeah. Like you said, Steve, it's kind of tough to put a cap on it not knowing exactly what's there. But I mean, usually, we try to comply with a six-month time frame at most. I think we can get it done probably faster than that. But then, obviously, it has to go through the review cycle with DOE and technical editing. But I think, you know, four or five months is reasonable.

MS. GOGLIOTTI: Along those lines, I would suggest that instead of revising it, we put out a -- more of a response so we don't have to go through the same DOE review and approval again on material that's already out there.

CHAIR CLAWSON: I think we usually build a matrix, too, don't we, Rose?

MS. GOGLIOTTI: Yes.

CHAIR CLAWSON: Okay. One -- one of the things -- and let me just take a minute here. And I know that you've got a question there, Josie -- what my process and my thoughts were on this, I was gonna let SC&A and NIOSH go through their issues and what they've reviewed, and put everything together, and then I was going to respond to the -- to the work group, because there -- there's some parts that I want to bring out to this that I think are very crucial in this. And I always want everybody to always remember that this is based on the information we had at this time. When you've made comments that the board has closed this because of this, these are living documents. The more information that we get in the comes into this, it will re -- can -- can -- will and can reopen any of these that we have already previously closed. Because as we work with this as a work group, it is based only on the information that we are provided. And I don't know if any of you have been able to look into the data dump that Dr. DeGarmo has given us, but it's brought a lot of questions into my mind.

So, what my process It says here today is that I want to be able to go through these slides. I want to be able to have NIOSH -- and refresh our whole memory on this. And then I want to take the work group down

memory lane, because we do have a couple of new members on here and help them understand what our process was coming through on this because this has been a difficult one. And I would say the biggest problem with Pinellas is lack of information and data. And I'm not saying bioassays data. I'm saying the process of what went on in this facility.

Now, the monitoring and data comes into that after we have established what actually went on in these facilities. But I want to be able to give -- NIOSH to be able to do their presentation, and then I wanted to sit down and go through for the work group -- because this is a work group meeting -- but it has been so long since we have met, I felt that it was critical that -- and especially with the new members coming in, to be able to get this background of the facility, of -- of what we've just got and gone from there.

But -- but Steve, I do have a question on your observation eight, if you could bring that up for --

DR. OSTROW: Sure, let me go back to it.

CHAIR CLAWSON: Yeah, I just --

DR. OSTROW: The contamination controls found generally good by the Tiger Team.

CHAIR CLAWSON: Right, that -- actually, I -- I think that when -- when I read that, that there was a question, that -- of the spread of it. It was just generally good. But there -- there were more issues within that. But I think that this is something that we can address as a work group as we go into this. But I'm going to give NIOSH -- if there's no more questions with yours, I'm going to give NIOSH an opportunity to be able to

go through theirs, then I would like -- then our work group is going to start, and I want to give a little bit of background of where the work group has come on this and what we are doing on it. So, with that being said, is there any more question for Bob (sic) on -- on his presentation from the -- especially from the work group members? Dave or Ms. (sic) Martinez, I believe, and -- if there's any questions?

MEMBER MARTINEZ: No, thank you. This is Nicole.

CHAIR CLAWSON: Nicole, okay. Thanks. Okay. With --

DR. OSTROW: I'll unshare my screen.

CHAIR CLAWSON: Okay. With that being said, we'll turn it over, I believe it's -- Maddie's gonna do this one, too.

DR. OSTROW: Stop sharing...

MS. COOK: Josie, did you have a question?

DR. OSTROW: Okay. There we are.

MS. COOK: I thought Josie had also had a question.

MEMBER BEACH: Oh, sorry, Maddie. No, I just was curious about the new data more than anything. I saw that there was quite a bit, and I was just curious where SC&A was on it, so thanks.

## NIOSH RESPONSE TO "INTERIM SC&A REVIEW OF THE SEC EVALUATION REPORT FOR PETITION SEC-00256: PINELLAS PLANT"

MS. COOK: So yes, I'll get into our responses to SC&A's interim review. Quick overview, I'll do a brief introduction, then got -- get on into our responses to SC&A's 13 observations, and then wrap up with NIOSH's conclusion.

So, introduction. Here's a time line of the evaluation report. We published our evaluation report on October 13th of 2021. That was then presented at the December 8, 2021, board meeting where SC&A was tasked with review of the ER, and they published that review on June 16th of 2023.

Some information on the executive summary of SC&A's interim review. They point out that the petitioner raised new issues that may have SEC implications. And also, SC&A has not had the opportunity yet to review documents that we captured in our data captured trips to Morgantown. However, with that SC&A is releasing its interim review, where they had no findings and 13 observations. SC&A broke up their observations into two separate groups with observations one through five and 11 through 13, being based on the SEC-256 ER published by NIOSH in 2021. And observation six through 10 were based on review of the Tiger Team report published by DOE in 1990. So, we've grouped SC&A's observations into two separate groups, the first one being those that required no responses, observations one, six, 11, and 12. And then for the remaining observations, we broke those up into six fundamental issues. So, those being observations two, five, seven, and nine regarding bioassay data completeness as it relates to the ability to do a co-exposure, as well as assessing a stable metal tritide exposure.

Observation three, SC&A would like us to reference OTIB-66 in the internal TBD. Observation four, review of monitoring frequency for NOCTS claimants suggests that there may be missing bioassay data for 1988 through 1990. Observation eight was -- again, observation six through 10 had to do with the Tiger Team report, and that pointed out contamination

controls were not always followed. Observation 10, Tiger Team found managerial attitudes focus more on production than safety. And observation 13 was with regards to doses not possibly being accounted for given the lack of records as discussed in observation four and the bioassay compliance issues discussed in observations two, five, seven, and nine.

So, getting into our responses to SC&A's observation one, neutron generator production was fairly steady. The key points here being that SC&A reviewed neutron generator production from '74 through '93, and it showed that it was fairly steady with a peak in the early '80s and notable dips in the late '70s in to the year of 1980. NIOSH concurs with this observation.

Observation two, potential for tritium contamination is adequately addressed. The key points here being that we rely on those who were monitored for tritium in veer -- via urine analysis to determine exposure potential to stable metal tritides. However, given the deficiencies pointed out by the Tiger Team, this may not be appropriate. Observation two, NIOSH response. NIOSH will update the panelists internal TBD to include the following guidance: When periods are identified during which an individual claimant should have been monitored but was not, internal dose from insoluble tritium based on the methodology in Section 5812 will be included in addition to soluble tritium dose.

Observation three. The ER does not reference recent special tritium compound document. They keep -- key points here being SC&A would like us to reference OTIB-66 and also examine if it has SEC-ER implications. They also point out that site-wide air monitoring and contamination survey

data should be used over modeling and dose reconstructions for SMTs. NIOSH response: OTIB-66 provides guidance on using urine bioassay data. This doesn't affect the SEC ER because -- or Pinellas, we don't rely on urine bioassay data; instead, we use site-wide contamination surveys, which is in agreement with SC&A's second point for observation three. And this was agreed to at the August 2016 Board meeting. However, NIOSH will revise the internal TBD to include a reference to OTIB-66.

Observation four, lack of bioassay records for '88 through '90. So, the key point here was that although 129 to 201 employees were reportedly monitored out of a total of 1750 people at the site, NIOSH has records for three to 10 claimants out of about 300 claimants. So, we understood this observation to be that those ratios weren't quite aligning. So, information cited by SC&A here for this observation came directly from a table in the evaluation report. And the data for that table was based on data prep files that were compiled prior to dose reconstruction. And when we took a look at individual claims, we see that there's a more complete data set available, and it is in fact used in dose reconstruction. So, we've updated that 1988 through 1990 records information. And you'll see here that instead of between three and 10 monitored claimants, we actually have 22 to 35, and those ratios are a bit more consistent with those of the total site personnel.

Observation five, bioassay schedule noncompliance by the plant. Key points: NIOSH should demonstrate a co-exposure model can be done given this apparent incompleteness in bioassay. Also, a bounding co-exposure would seem warranted in the latter period as well. Observation five NIOSH response: NIOSH does not believe demonstrating a co-exposure model is

necessary. The Tiger Team report was the basis for the SEC-256 ER, and in that era, we evaluated and affirmed NIOSH's ability to accomplish dose reconstruction, even given this noncompliance issue pointed out by the Tiger Team.

So, now I'll get into some summary information from the ER on dose reconstruction evaluation. The Pinellas Plant improved bioassay compliance by tracking individual compliance, and this was in response to the Tiger Team assessment. And with that increased compliance, we see that this did not result in increased measured doses implying no large exposures went unmonitored. Additionally, NIOSH reviewed NOCTS claims and confirmed Pinellas did monitor workers who were expected to have had potential for internal tritium exposure as well as in our interviews when we spoke with former workers, no one was aware of this noncompliance issue, and they offered a broad range of possible explanations, simplest being the workers were on leave. Also, not removing workers from bioassay schedules once they had been reassigned to nontritium work. And then also, employees who entered tritium areas on a nonroutine basis were placed on routine bioassays schedules. So, this would imply that the noncompliance issue was not systemic nor widespread amongst workers.

Also, the Tiger Team found workers with higher exposure potential to those monitored on a daily or weekly basis were more compliant than those who had less potential. So, any unmonitored approach that we're currently using is based on monitored workers and is a biased high. We currently apply the 95th percentile full-body dose of 100 millirem to unmonitored workers as a claimant favorable yet reasonable approach, and this was

agreed to in February of 2016. However, we would like to note that NIOSH will be updating the internal TBD to explain approaches for determining internal tritium dose for unmonitored workers as well as monitors with -- monitored workers with gaps.

Observation six, the radiological protection program commended by Tiger Team. Key point here being on a positive note commending the radiological protection program the Tiger Team report states, the overall assessment is that all levels of the Pinellas organization are receiving adequate radiological protection. This is primarily due to a Pinellas staff that appears willing to accept line responsibility for radiological safety along with technically strong health physics staff providing direction. NIOSH concurs with this observation.

Observation seven, bioassay sampling frequency requirements not followed as noted by Tiger Team. The Tiger Team report complements the plan for maintaining low overall internal dose exposures but also makes the important finding -- this noncompliance issue with submitting bioassay samples on the scheduling frequency. NIOSH concurs with this observation. We provided more details back in observation five as well as within the SEC-256 evaluation report.

Observation eight, contamination control is found generally good by Tiger Team. The key point here being the Tiger Team report discusses the effectiveness of contamination controls at Pinellas and notes that while it's generally good, there are instances when it's not. So, the Tiger Team assessment of, quote, generally good, would seem to speak to the overall conditions of Pinellas. The negative Tiger Team examples in reference here

are related to conditions and such transient conditions don't present a challenge to reconstructing internal dose for claimants. Plant contamination controls are low, therefore minimizing potential dose, and in fact, the average internal dose for all monitored workers from '86 to '91 was between 1.04 and 4.38 millirem per year. And this would include any exposure from plant-wide surface contamination.

Observation nine, bioassay sampling program implementation inadequacies noted by the Tiger Team. Key point here is the Tiger Team report contains several radiological findings, especially with concerns related to internal dosimetry. And NIOSH cited this Tiger Team finding as the qualified basis for evaluating the SEC-256 petition. Responses. NIOSH concurs with this observation as noted by SC&A. The Tiger Team finding was the basis for qualifying the Pinellas SEC petition for -- for evaluation. And again, we went into more detail when discussing observation eight and, again, in the SEC-256 ER.

Observation 10, Tiger Team assessment of deficiency root causes, emphasis on production, and mindset that Pinellas poses no unusual radiological risks. So, SC&A points out in this observation 10 that when the Tiger Team investigated probable root causes, they came up with these two ideas of emphasis on production, overshadowing safety standards, and the mindset that Pinellas poses no unusual risks. Observation 10, NIOSH response: The site issues relate to managerial assessments and are more of a reflection of managerial (indiscernible) than the Pinellas radiation protection program, so there's no implied deficiency in the ability to accurately monitor personnel nor determine their potential dose.

Observation 11, transition year of 1990 after Tiger Team assessment led to overall reduced exposures. The key points here of observation 11 were that data indicate a significant decrease for external doses from 1990 through 1991. There was an increase in internal doses for trit -- for tritium in '91 to nine -- from '90 to '91. This was due to an identified isolated incident and then there was a gradual decreasing trend during the years of '92 through '95. And to date, SC&A has not found indications there are issues with exposure records that would prevent dose with construction feasibility for the SEC period of '57 to '90 nor for the period of '91 through '97. NIOSH concurs with this observation.

Observation 12, ER is consistent with interview records. Key points being that SC&A reviewed our interview records and found the interviews reflect the full date range of work at Pinellas, as well as a broad range of professions. Those with work in science and engineering as well as lab-related work were more familiar with the internal and external monitoring programs at the site, and the recollections of these (indiscernible) did in the SEC ER. NIOSH concurs.

Observation 13, Pinellas Plant diligent and following up on contamination-related incidents and personnel exposures. The key point of SC&A's observation 13 being that the Pinellas Plant was diligent about following up on these incidents and exposures. Reports show investigations into the causes of these incidents and most indicate follow-up monitoring was done for those employees who were involved, and they also provided guidance and recommendations for present -- for preventing these incidents from reoccurring in the future. However, given the lack of bioassay records

for the years '80 to '90 as discussed in observation four, it's possible that the program may not have captured all of the exposures related to contamination incidents.

Observation 13, NIOSH response: As we discussed back in observation four, bioassay data is not missing. We have addressed the issue with bioassay compliance in observations five, seven, and nine, and there's no impact to the feasibility of dose reconstruction.

Conclusion, NIOSH concludes it's feasible to estimate the radiation dose evaluated for Pinellas workers. None of the observations in the SC&A interim review contradict the conclusions presented in the SEC-256 ER.

And that's it. Questions?

MEMBER BEACH: I -- I'll go ahead and start. On observation three, slide 17, you mentioned the site-wide contamination surveys. Can you remind us how -- how many you have for the site-wide surveys that you're gonna -- that you're using?

MS. COOK: What slide was this?

MEMBER BEACH: Slide -- observation three, slide 17.

MS. COOK: Okay.

MEMBER BEACH: Or page 17, I should say, not slide 17. Sorry.

MS. COOK: Observation three was with regards to the OTIB-66 SMT modeling based on site-wide contamination surveys. So, our current approach is to assume a constant exposure to the highest bound contamination survey which was 4.4 million dpm per 100 squared centimeters. Does that answer your question?

MEMBER BEACH: Well, I was going to the second bullet where Pinellas

method for assessing dose from the stable metal tritides uses site-wide survey. I guess I misunderstood that, so yeah, I think I'm okay.

MS. COOK: Okay.

MEMBER BEACH: Thanks.

MS. COOK: Brad, if you're speaking, we can't hear you.

CHAIR CLAWSON: I'm so touchy about muting and unmuting. Okay. If there's no more questions for Maddie at this time, I'll -- I'll give the opportunity to Dave and Nicole.

MS. COOK: Dr. Anderson, do you have a question?

MEMBER ANDERSON: This is kind of going back. Of all the claims that have been reviewed, how many of them were compensated?

MS. COOK: About 16 percent.

MEMBER ANDERSON: Okay.

CHAIR CLAWSON: Okay. With that being said, I don't hear any more questions. I guess it's my turn now to -- to have a few words. One of the things I want -- we've got two new members to the work group. Maddie, you've only been with NIOSH for what, a year, two years?

MS. COOK: Three years.

CHAIR CLAWSON: Three years. Okay.

MS. COOK: (Indiscernible) --

## WORK GROUP DISCUSSION/PATH FORWARD

CHAIR CLAWSON: Yeah, so you're kind of new to Pinellas, too, so I'm going to take you back down memory lane when this work group first got started. One of the things I want you to remember about this is we are only

able to make these evaluations on the information that we have at this time and what we have been able to provide, what we have found, and go on from there.

One of the things was -- was in the later years when Pinellas closed, all its operations were moved to different sites. One of the main ones was Sandia, where they do the tritium and also the neutron generators. One of my big issues, and we battled this one for quite a long time, was the neutron generators and the plutonium. It was always told to us because there was lack of information on it, there was lack of monitoring, the processes, everything else, it was not an issue because it was triple encapsulated.

Well, one of the things that's interesting is when we went to Sandia, they actually have a facility for this, because part of the Q/A process is to take the neutron generators and run them to failure. That makes a mess. There's a lot of monitoring that should have been going on. There's a lot of information that has come in here lately. And I want us to be able to take a look at this and start evaluating on -- with this new information that we have that has come in here, which I'd like to thank Dr. DeGarmo for and -- the information was quite a data dump. I -- I will be honest; I haven't gotten through it all.

One of the things was Pinellas was part of a monitoring for the plutonium, the health effects of plutonium on the people. There's been a lot of things that have come in. And I'd like to thank Donna Hand. She has provided information in to us too. And I appreciate that.

But as a work group here, I also want you to remember when we take and close a topic, that does not mean it can't be reopened. It is closed on

the information that we had at that time. So, any of these observations, any of these findings that we went into, can be reopened when we -- if we find new data.

As a work group, you're gonna come to find out one of our limiting -- limiting factors is information. Information on the plant, information on the people, information -- data, of the monitoring, of the processes. There's -- there's been several that have come out that have intrigued me, one of them being Heather (ph), and you can see that -- that's actually still a classified process. But we will be able to have the ability be able to look into that deeper.

As work group members, part of our processes to evaluate with what the information we've had. And as this comes in, we want to be able to review that. One of the hard things with Pinellas was that -- with it being closed, being D&D'd, and everything else like that, was not very easy for us to be able to get a good background on what actually went on in that facility. Yes, we can pick out the one or two things here or there, but you start getting into how the ventilation flowed, everything else like that, and we've -- we've had numerous people telling us no, you don't have the right picture on this. But we are -- haven't had any data to be able to contradict that. All we have is the data that we were given.

With this new data dump, it brings into question a lot of things. I really want to look at the waste stream going out of Pinellas, because I think we're going to find out that there was a lot more going out of it than what we were aware of. The other thing is I'd like to take a look at the neutron generators and what their Q -- Q/A process was to be able to assure that

these were operating. Also, in this data dump that came out also came out, the recycling of the neutron generators that had been in weapons before. And now they were coming back through Pinellas to be able to be refurbished, reevaluated, and looked at. That brings into question a lot of the triple encapsulated plutonium. I -- I think that there was a biggest -- bigger area on that.

The work group hasn't been active for quite a while, and that was due to no more new information coming in, but also with our fellow member that was having several health issues. With that being said, I want us to be able to -- I think that we need to take a better look at this. Myself, I would really like to be able to do some more claimant interviews and be able to evaluate a lot of these processes and questions that we are -- because I'm gonna be right honest. We can sit here as Board members and everything else, and the backgrounds that you gave us, Maddie, were really good and everything else. It was looking at the side at 30,000 feet. And myself, I'd like to be down there at about 100 feet and be able to understand how the process worked, how it went through there, and how the monitoring of these people went. That's always been in -- to a question.

And this is -- this is where I want us as a work group to be able to evaluate our path forward with this. I think that we've got -- we've got a fair understanding of the facility but not -- not in depth to be able to do these dose reconstructions the way that we should. With that being said, I -- I want to ask the work group members of questions that they have on this. And so, this is -- this is you, David, Nicole, and Josie. I'm -- I'm wanting to take a path forward to -- to be able to -- one of the things we've got to be

able to do is -- with SC&A, we've got to develop a matrix, as we have done with all of our work groups, so we can track some of these issues, if they're op -- reopened, or if they're closed, and why so that when people come to us and asks -- ask us why did you do this, we have a table tracking why and where we did these things. You're gonna come to find out that in all these work groups, we usually work with a matrix system so we can track the report and also the points of interest as we go through these things. So, with that being said, from other work group members, are there -- anything that we need to be able to do?

MEMBER BEACH: Hey, Brad, this is --

MEMBER MARTINEZ: Hey, --

MEMBER BEACH: -- Josie. Oh.

MEMBER MARTINEZ: No, go ahead.

MEMBER BEACH: Sorry. I -- I was just wondering, who -- are you the only member of the work group that is from the original group?

CHAIR CLAWSON: Boy, that makes me sound old, Josie, but yes, I am.

MEMBER BEACH: The original, okay. And is -- had -- I thought Henry was on this work group as well?

CHAIR CLAWSON: I think he’s -- I don’t -- are you?

MEMBER ANDERSON: Yeah.

MEMBER CLAWSON: Oh, sorry.

MEMBER BEACH: Yeah.

CHAIR CLAWSON: I left you out.

MEMBER ANDERSON: When people -- when we reconstituted it, we

didn't -- you didn't have very many -- you being original, and then Josie -- and then we decided to add two more to it to make it --

MEMBER BEACH: Yeah. And I wasn't an original member.

MEMBER ANDERSON: No, no.

MEMBER BEACH: So, no. And is David Pompanos (sic) on this also?

MEMBER POMPA: Yes, David Pompa is.

MEMBER BEACH: Okay, that --

DR. ROBERTS: No, no, no, he is no.

MEMBER ANDERSON: No.

CHAIR CLAWSON: No, he's not? Okay.

MEMBER BEACH: I didn't -- yeah, I didn't think so. I know he's joined us to listen in, but you kept mentioning him, and I didn't think he was. So, okay. That's clear. And you --

CHAIR CLAWSON: Well, you --

MEMBER BEACH: -- Brad, sorry, not trying to jump on you. You have brought up some really good points. Some of them that I haven't had a chance to really think about, but it sounds like we do have a lot of history and a lot of new information to go through. So, I'll turn this -- I'll let -- give Nicole --

CHAIR CLAWSON: Well, let --

MEMBER BEACH: -- an opportunity.

CHAIR CLAWSON: Go ahead. Yeah. Go ahead, Nicole.

MEMBER MARTINEZ: I was just gonna say that the -- the new member, I don't have questions, per se. But you're -- you're certainly right in that I have to learn. So, I'm better at, like, acronyms now, but I had to

learn from the very basic beginning, right, so the acronyms and the internal processes and procedures and all of that. So, I'm doing better with that. So, now I can start getting into reading, right. Like, I've read some of the -- the files that Dr. DeGarmo sent, but I still need to read more. And so, I think your point is well taken in that it -- it's just going to take some time to sift through and learn the background to be able to -- to -- to have a path forward. But as far as your suggestions for the path forward, I like them. I agree with them. Love the idea of the matrix. If I don't write something down, I don't remember it. So, I think that's a great idea to have it.

CHAIR CLAWSON: Well, and I appreciate that, Nicole. One of the -- one of the issues is -- and I will be honest, when I first came onto this Board, I had to have them print out a matrix for me because all the acronyms that are used in the DOE facilities overlap on one another, and you can go from one site to another site, and that acronym there is different. So, this is -- this is why in the process of the beginning of it, all the acronyms that are used in there -- and I really appreciate that with NIOSH and an SC&A when they do that -- because it is very, very difficult.

One of the things is this work group has not met for a very long time. And this -- this information that has come in, I think, that we need to be able to evaluate, because the interim report that was put out by SC&A has none of the data that has been brought forth to us. And I understand with -- like, with the neutron generators, the R -- the RTCs, and I'm probably even miss -- the issue is -- is that we need to be able to look at where and what we were actually dealing with there and what information we have, and is it adequate to be able to do the dose reconstructions that we have. And we

have been limited by information.

And Pinellas has been a bad one, because a lot of the operations were moved on to another site. When they went to the new facilities in Sandia, these -- they were modified. They were brought up to date. And, you know, that was one of the things that we tried to find, was -- what was the changes to the tritium process and -- and luckily, we were able to find some people that says well, at Pinellas, this is the way it was done. Up here we do it this way. And so, there's been some changes there.

But I think for us to be able to get off on a good foot -- and I'm just putting this out to the work group right here -- with this new data that has come in, I think that it is important that we have SC&A and NIOSH be able to look at this. I think that we're going to evaluate this. There is quite a data dump. And -- and I'm still getting through quite a bit of it myself. And it's -- it -- there's a lot of information that brings a lot of questions in my mind, and so that -- that's kind of the path forward that I was going on with things. And with that being said, is there any other questions from the work group there?

MEMBER ANDERSON: I would just go back to -- I'm intrigued by the patients that were compensated that given the exposures we're talking about here, and assigning 100 millirem per year, how the cases that were compensated (indiscernible) level of compensation, were they exposed potentially elsewhere as well as here, but what were the conditions that led to the ones that got compensated? It can't just be having worked there forty years or whatever. So, that's kind of -- I think we could learn that we take -- take a look at the ones who are compensated and see how likely

were we to miss exposures similar to that, that therefore, weren't able to be reconstructed.

MS. COOK: Dr. Anderson, I can speak to that. The majority of compensated claims were due to medical X-rays. Pinellas had PFGs, so that's Where the compensated doses are primarily coming from.

MEMBER ANDERSON: Okay. That's -- that's -- that's important to know. I was just curi -- you know, it didn't seem to me that there were -- other than maybe some upsets, but you have to be -- and always the upsets to get a high enough dose, but if a contribution from medical is contributing to that, that's important to know. Thank you.

CHAIR CLAWSON: And that -- and that's a good point, too, Henry. And I appreciate you bringing that forth. One of the things that -- and I keep coming back to this is the information that we've been provided. And I -- I don't think that we've really been able to dive into Pinellas deep enough to be able to see all that they did there. I think that when we come in to these sites, I -- I think we do a real good job at capturing about 50 to 60 percent. But it's the other 40 percent that we don't know about. And I -- I can be truthfully honest, just even from my past. A facility in my same building that I worked for over 30 years, I didn't realize what they even did in there until this program and part of the classified information to be able to find out about it. So, I -- I think that it's important.

I would -- I would like to interview some more of the petitioners. This is -- this is one path forward that I'd like to be able to do. But I would like to be able to have SC&A review this data capture and also NIOSH and be able to put forth a -- a report to us and see if that affects some of their

comments that they had in the interim report. Because I want you to realize, this interim report, I'm -- Bob, correct me if I'm wrong on this -- was all -- almost started on almost six to nine months ago. So, none of this data that has come in to us has been put into this report. And I want to make sure that we evaluate this report and this information that has been provided for us after -- after the process of evaluating a lot of this information and any more information that comes in to us, I would like to be able to go down and do -- with -- with -- with everyone to be able to -- to interview some of the people that would be provided for us to be able to interview and get a better get a better idea of this plant.

You know, I'm the plutonium one's kind of interesting to me. Tritium was a big actor in there. Some of the stuff that's come out in this -- in this data dump that we just got is really piqued my interest. And so, with the work group, I guess I want to put forth to you a path forward of -- of -- of what we'd like -- what I would like to do. And I'd like to make sure that it's correct with what you guys want to be able to do.

I would like to be able to build a matrix with SC&A so that we can track this and also track this report that was put forth to us. That's the only way that we can -- we can track the issues and do proper evaluation. I would like to have SC&A review the data that has come in to us and to be able to evaluate if it does affect or it does not or if it opens up some of the questions that we've already closed. And then I would like to be able to have that report come to us, the same process, and NIOSH be able to respond and so forth. But to be able to get us up and going, I would like to start that path forward. If there's any -- any of you have any questions?

MEMBER BEACH: I don't, Brad, but I do agree with your path forward.

CHAIR CLAWSON: Okay, great.

MEMBER BEACH: Sounds reasonable.

CHAIR BEACH: Okay. And -- and I -- I think this will really help some of the new members be able to understand the process also too, but also be able to get down to the information process on that. So, Bob, do you have any questions of -- of kind of what our path forward is going on, on this?

MR. BARTON: No, I don't believe so. And I think you're absolutely correct that this is a -- a -- a living document. A -- a -- a review that can be updated as new information comes in.

And just to give a little context on how we got to this point, we -- we had been reviewing all the information available at the time. But a lot was more was coming in, and we had gotten noticed that there was going to be further data captures. And so, instead of sort of keeping our draft review in perpetuity, we decided let's cut it off here, and we're going to slap the interim tag on it. To my knowledge this is the first time we've ever done that, to acknowledge the fact that there's more information coming in that needs to be considered and evaluated before the Board could take any action. And then just to remind, you know, the members of the public and everything, even if the Board takes action, that doesn't mean it's gone forever. New information can come in, and things can always get reopened. But I agree. I'd like to take a look at -- at that data capture and the -- the documents provided by Dr. DeGarmo, and we'll see where it takes us.

CHAIR CLAWSON: Okay. I'm pretty sure --

MR. BARTON: More interviews, as well, I think is a good idea.

CHAIR CLAWSON: I do. There's a -- a -- I think that's -- you know, one of the things I found out about these sites is we can do all evaluation we want, but the people that work there, they know it the best, and we need -- we need to talk and -- talk with them.

And I'm -- I -- is there anything, Rashaun, else before I turn it over to the petitioners to -- to say what they would like to be able to do? Is there anything, Rashaun, that I need to catch up to be able to proceed with our path forward?

DR. ROBERTS: No, Brad, I don't think so.

CHAIR CLAWSON: Okay, I appreciate that. I just want to make sure that I was doing this correctly.

That -- that's kind of our work group discussion here. And I wanted to -- I kind of jumped ahead to the path forward because we are -- I -- I guess when I started talking, I just kept on going there.

But anyway, I want to give the petitioner an opportunity and the person of this data capture that is -- that we brought forward to be able to have some comments. I know that, Dr. DeGarmo, this is one of the first time you've been able to -- to come in to this. I hope if there's some questions that you have of a path forward but also to why and what we're doing, that you feel free to be able to ask that. So, that being said, I'll -- I'll turn it over to Dr. DeGarmo.

## PETITIONER COMMENTS

DR. DEGARMO: Well, first of all, I want to thank you for allowing me the opportunity to attend this meeting. I think it is critically important. The

first thing I would like to tell you is that the data is likely to still come your way, new data. I am waiting on somewhere around -- I think they figured 5000 pages of documents coming from the DOE. I've been waiting almost three years for that FOIA to arrive in my hands.

But outside of that FOIA, in my own private archive, I still have approximately 1800 to 2000 documents that I absolutely need to go through, and that takes time. It's just me. I don't have a board of people around me to be able to go through there. I'm trying to pick out things that I think serve the petition to the best of their ability, but I do have a lot more data to go through. And it's my understanding that one of my claimants is about ready to hand me an -- oh, I guess another couple of 100 pages that they acquired from management positions, which might go to some of the issues about quality assurance, and so forth.

I'm absolutely thrilled that you're bringing up the question of interviews. One of the concerns I've had about the way the interviews were conducted is that a lot of questions on the interview forms were never even asked. I'm not sure why that is the case but being able to determine -- knowing my claimants as well as I do, some of the responses, I know who -- who was talking to you, and I know that they could have answered questions that were left out of the mix. So, that concerns me. And I'm not always sure that the right questions are being asked, or if they're being finessed in a way where some of the claimants understand them.

I also have an issue in that we know, based on the folks that I have worked with and I have interviewed myself, there is a difference in the way in which African-American employees were treated in terms of not only

being assigned -- assigned monitoring data, but protective gear or anything like that, versus some of the -- the white folks who worked there, who were in different positions.

I also noticed you have a whole lot of management people who I'm wondering how accurately they reported issues, because most of them went on to work at other facilities. So, I think that the people of Pinellas absolutely deserve another chance to really have folks come in there and ask them pertinent questions, because I think you're going to find out a lot.

One of the things that I think is also -- I mean, we have a lot of issue still with the bio assays. I mean, if you only have 20 or 30, are those 20 or 30 of the same person every year? Who -- and nobody is willing to answer those questions. I've asked those questions; can you give me a characterization of who these bio assays are from? And NIOSH told me they couldn't do that. And so, I don't know who's being represented there.

I know that I inquired about one of the people that I work with who had a plutonium and exposure who was told literally to go home and drink beer for two weeks before he could come back. And I was told by Mr. Calhoun that his exposure was nothing too bad and shouldn't worry about it. But the whole point is if he's getting an exposure and we have evidence of plutonium going up the smokestacks, how can you possibly deny that plutonium was leaking or moving throughout the facility? I've never quite understood that.

If it's out there, and it's not being monitored or -- or no one's paying attention to it, what are we missing? In the Tiger Team report, I mean, there are 43 instances where plutonium is mentioned and how poorly

Pinellas actually conducted the monitoring routine. So, I think -- I actually uncovered some more documents on plutonium, which I will get to the Board as soon as humanly possible.

I want to -- with all due respect to SC&A, I think that observation eight, where they're talking about contamination controls found generally good by the Tiger Team, I think it's also important that the rest of that paragraph is revealed from the Tiger Team report that says, Tiger Team found instances where contamination controls were not always followed, allowing contamination to spread to the general areas of the facility. So, how does that failure -- how is that being incorporated into any kind of dose reconstruction? Can it be incorporated if we know it occurred, but there's no monitoring there? I mean, the DOE even admits itself through various documents, and especially on the environmental health documents, you know, -- a -- a -- nationwide that they weren't very good at protecting people early on, and they weren't very good at monitoring, and they don't question their own reliability of their monitoring data.

So, I guess, my other question is, we have the Tiger Team report. It certainly captures one moment in history. But who -- who is there to determine how the Tiger Team actually was interpreting what was going on? I get a lot of this language. Well, it seems that this may indicate, well, maybe we can interpret this, maybe, you know -- who are you sitting in your positions to be able to look back at the institutional history of what occurred there and really know what the Tiger Team was thinking. Well, had the woman who worked at Pinellas who actually went through the whole facility with the Tiger Team, had she been interviewed maybe you would have had a

clearer picture of what the Tiger Team was thinking at the -- at the moment.

So, our point is that most facilities, when they are being dealt with, I think that in some cases NIOSH and some of those agencies suffer from, what I'm calling, institutional amnesia. I don't understand how you can just rely on numbers to dictate whether or not somebody should be compensated or not. You need to understand the process. You need to understand what those numbers are capturing. You need to understand whether they're capturing, as Mr. Clawson said, the actual processes that occurred there.

And we have -- you know, some of the information that I provided to you most recently is going back to the Heather project. Yes, it's classified. I've been able to determine in receive enough information. I don't know all the ins and outs, but I do know that there was an explosion in the Heather area that absolutely had to -- the company how to evacuate all of the workers in building 100 because the Heather project was in the area 300 of the 100.

I'm not so sure you actually have the data on that. I've not seen it. I've not seen it in the areas that I have with the incidents. I know that there are documents out there that list all of the -- the health physicists very early on, listed all of the incidents. I'm not seeing some of those incorporated in the information.

Now remember, I don't have all of the documents that I -- I am entitled to from the Department of Energy, and very, very frustrated that we as -- or petitioners are not getting the opportunity to look at those. But from the information I have, they don't seem to be there. So, we have a lot of questions. We have a lot of concerns that you need to go back to as -- as

Bob said, we need to go back and create a better understanding of this facility and what it actually did there.

I spoke with an engineer the other day, who told me, you know, I'm not seeing any information about all of the destructive tests on the nuclear generators. That was ripe for exposure. Why are we not talking about that? So, there's all of this information that you don't have that we're doing -- I'm doing everything I can to get through it to give it to you. And I think your -- your plan forward is so important, because there is a huge order of business out there that you don't know about. And too many people are just willing to say there wasn't enough radiation there to matter. We shouldn't really be concerned. Pinellas didn't do anything important. If Pinellas didn't do anything important, then why is it only one of 16 defense production sites out of the over 300 sites listing nuclear facilities across the United States? Why are they part of, what I'm calling, you know, the -- the plutonium click, and being able to trace their relationship to the other facilities with plutonium.

So, I won't -- I won't take up more of your time. We have lots of questions, but our goal is to continue to do our due diligence, go through these 1000 some-odd documents to make sure that we can give you everything that you need to be able to put the -- the site profile together in a more comprehensive and technically correct way, with the hope that somehow or other you'll be able to realize there's a whole story here that is being ignored, and not being, I think, appropriately captured through the work of NIOSH, because they're not looking at the history -- the institutional memory. That's all I have to say.

CHAIR CLAWSON: Dr. DeGarmo, I do want you to realize something, and it's just like this last report that we put out there, we have to take a moment in time and we have to shut -- shut the information stream off so that we can prepare these reports and be able to get them out. And -- and as Bob said, these are living documents. And as the information comes in, it changes a lot of things. And we've seen this in numerous other sites that we've got more information coming in, we -- we -- we evaluate that, and we go in. But when we do, do these reports -- because we have to stop at some point and deal with the information we have at that time, and then we go forward. And it's kind of a leapfrog-type thing.

But I wanted you to realize that. It wasn't that we were dismissing your information. It was that we have to evaluate with what we had at that time. And I do appreciate the work that you have done on this, because the most important thing that we need is the information.

I also want you to realize that you have members of SC&A and NIOSH and also of the Board that can look at this classified information. When the information on Heather was first brought out to us -- I've already started the process with DOE to be able to get a more -- better understanding of the process. And I'm hoping in that process, we're going to get a better background of what actually went on there with Pinellas, because usually we're there's one classified operation, there's more than -- more than that going on.

I've been very intrigued by the documents that I have been able to review of how important Pinellas played in the program. I did not -- and I've been on this work group from the very beginning of it. I did not realize how

much it played into it. Also, in the recycling process of pieces and parts of the weapons as they came in, a lot of the new electronics and stuff that -- that don't have a dose issue or anything else there. But -- but -- the point I'm trying to get to is I think that we are starting to get a better understanding of this site. And that's -- that's what our path forward is to be able to do.

I -- I did find it intriguing. And -- and one of the things that I -- I want to be able to start looking at is the waste stream going out of Pinellas, because usually the garbage going out of there tells us a better understanding of what was going on.

And -- and -- and Grady, I don't know if you've read it yet, but the -- there was a -- we -- I can't -- I can't say precisely that this was just from Pinellas or whatever, but they took out on the USS Calhoun and dumped all this radioactive waste into the ocean. And I just thought it was iron -- ironic when I read the name of that. And I -- I kind of had to chuckle on that one, Grady. But it is --

MR. CALHOUN: Well, that was -- that was named after my great-great grandfather who was a general.

CHAIR CLAWSON: Oh, really? I -- I thought -- I thought what a -- what an interesting thing there. And I just -- I just -- I says, gad, I've got -- I got dig Grady a little bit on this. But that's really interesting. I'd like to be able to talk to you about that in another setting and stuff like that. But thank you for that information.

**WORK GROUP DISCUSSION ON PATH FORWARD**

CHAIR CLAWSON: For the work group, are there any questions or with SC&A or NIOSH what our path forward is for the information and the work group at this time?

MEMBER BEACH: Brad, I have a question.

CHAIR CLAWSON: Sure.

MEMBER BEACH: Not sure if this is for SC&A or NIOSH. Probably more NIOSH. Denise brought up a lot of information about different documents that she's been waiting a long time through FOIA to get to. If there are pertinent documents out there that would benefit our work group and NIOSH, is there an avenue for NIOSH to be able to help locate documents or have access to documents that a person in the public takes such a long time to do? I see Tim -- Tim might be geared up to answer. So, thanks. I'm -- I'm curious about that. That might be helpful.

DR. TAULBEE: Yes, Josie I'll take a stab at that. There -- what happens during the FOIA process is that, in some cases, individuals will request under the Freedom of Information Act, information that we currently have, like in the SRDB. If it is a document that is owned by DOE and not us, it has to go to DOE to be cleared to go -- that it meets the -- the requirements to go to the public, to go to the person issuing the FOIA. So, some of these documents that Dr. DeGarmo was mentioning there, we have in the SRDB. And so, they're already available to the work group for their review at this time.

I don't know that the full complete list is. I -- I don't have that -- you know, that information in front of me from that standpoint, but a large number of those documents are available. And as a -- to follow on with

that, you know, when we do data captures and when we do your requests for information, there is a larger library of information that we have access to that Dr. DeGarmo unfortunately doesn't without going through a FOIA at that time. So, that's a -- I just wanted to bring that up. And I hope that answers your question.

MEMBER BEACH: It absolutely does. Thank you, Tim, for that reminder.

CHAIR CLAWSON: Appreciate that, Tim. I -- I guess, so SC&A, do you have any more questions on what our path forward is as a work group?

MS. GOGLIOTTI: Brad, this is Rose. I just want to clarify. With regard to the matrix, what I see happening is we'll draft a matrix with SC&A's observations, as well as everything that we have gleaned off the petitioners' documents thus far, not including any of the new stuff that was just submitted to us last week. And we'll summarize that and put it in a matrix and send it to the Board and NIOSH for comments just to make sure that everyone agrees that we're summarizing things correctly. And then we'll go ahead and publish it. Does that sound agreeable?

CHAIR CLAWSON: Yes, it does. We -- we've -- we've kind of lost touch on this work group, I'll be honest. Because we were kind of at a certain point right there. I was reviewing some of the documents before we lost a lot of the documents and -- of where we were at, and it was kind of hard for me to get the moment in time. So, yes, that -- Rose, that would be the process. And then as this new information comes in, then we'll -- we'll go through these things and add or subtract it from the matrix like usual.

MS. GOGLIOTTI: Okay.

CHAIR CLAWSON: I appreciate you bringing that up to be -- help us be able to track these things. The matrix has been a marvelous thing.

Henry, do you have -- do you have any questions or anything on the path forward?

MEMBER ANDERSON: I think this is a -- a good plan.

CHAIR CLAWSON: This is this is a starting point. And I -- we're -- we're -- we're getting the gang back together for a fun work group, and but we've got to get -- we've got to get a process going and be able to evaluate it and continue on with these things. So, I -- I guess I'll open it up if there is any questions on our path forward to voice what -- what your questions are, and we'll continue on from there.

MEMBER ANDERSON: Well, I would just --

MR. CALHOUN: Brad, I just wanted to -- to throw out there that I was that was a joke about my ancestor and that ship. I didn't know if you heard that.

CHAIR CLAWSON: Oh, no, I didn't. I did not hear --

MR. CALHOUN: No, no, no. I was not -- I was not serious at all. So, let's not add that as something real.

CHAIR CLAWSON: Okay. Because I come from large military background, so I thought -- I thought that was quite interesting. I was gonna ask if it was part of the Civil War or not, but -- but thank you for clarifying that.

MR. CALHOUN: All right.

CHAIR CLAWSON: I was going to ask you on that. I just had to giggle on that.

So, with -- with -- with SC&A or NIOSH, is there any questions on our path forward with this? Henry?

MEMBER ANDERSON: Yeah, I just wanted to add that as claims continue to come in, NIOSH will continue to evaluate them. So, while we're proceeding with this, we're really not delaying the processing of any of the claims coming in. It would only be if it were to become an SEC, that would then require all that review of historic records.

CHAIR CLAWSON: Right. It is. I -- I am going to -- because of the classification and stuff like that, I've talked to a DOE on that, but I feel it is important that I do it through SC&A with Grady and Tim to be able to make sure that we have a chain in a process for that information. I know that they've -- Greg has said that he was going to look into it a little bit, but I would like to be able to get more information on -- on Heather.

And so, I guess that's one of my questions to NIOSH, is how would you want us to proceed forward with that?

DR. TAULBEE: Let us get back to you on that.

CHAIR CLAWSON: Okay. Well, I just --

DR. TAULBEE: Yes.

CHAIR CLAWSON: -- Tim, you understand what my issue is, is I want it --

DR. TAULBEE: Yes, I do.

CHAIR CLAWSON: -- I've got to be able to control where we're at and everything else like that and keep that in the proper chains. I know that Maddie does a fabulous job. I don't know -- even though she's got a clearance or not. So, that's why I'm turning it back to you and -- to proceed

forward.

DR. TAULBEE: Yeah. We'll get back to you on that.

CHAIR CLAWSON: Okay. That sounds good.

Okay. Any other Board members have any questions on our path forward? If not, Rashaun, I think this brings our work group --

DR. ROBERTS: I did, Brad, have a quick question. I know with --

CHAIR CLAWSON: Sure.

DR. ROBERTS: -- was there another Petitioner that wanted to address this --

CHAIR CLAWSON: Oh, I'm (indiscernible). I'm sorry, that -- that is correct. If there are other petitioners on the Pinellas that would like to be a part -- have -- be heard, I would -- it's open to you at this time.

MR. RUTHERFORD: I'm not sure, are there other petitioners on this petition, Chuck?

DR. DEGARMO: Yes.

MR. RUTHERFORD: Okay. Thank you, Dr. DeGarmo. I -- I -- I did not remember myself. This is LaVon. Rutherford.

DR. DEGARMO: Yeah. We have two additional co-petitioners, one who is serving as our site expert who is actually on -- was on the phone call, but I think he's elected not to speak at this time. He's given me his notes, so.

DR. ROBERTS: Oh, okay. Thank you.

CHAIR CLAWSON: Okay, thank you, Rashaun. I appreciate that. I kind of lost track of that. So, I'll -- I'll turn it back over to you Rashaun.

DR. ROBERTS: Actually, I think you can -- I didn't have anything. I

think can --

CHAIR CLAWSON: Okay. We can -- we can bring this work -- do I have a motion to have the work group adjourn?

MEMBER ANDERSON: I'll make the motion that we adjourn.

MEMBER BEACH: I'll second it.

CHAIR CLAWSON: Okay. Sounds great. Now, before we go, I -- I do want to tell everybody how much I appreciate the time and the effort that they put into this. For some of the new members that are coming to this, there's going to be a lot of background that you're going to have to do to be able to come up to it. I hope that you feel confident that you can reach out as -- to any of the people that are here that'd be able to help us better understand this site and go fourth.

I'd like to personally thank Dr. DeGarmo. I -- I am going to be honest, I have not read at all, but it was quite a data dump. And I appreciate that. It -- it's -- it's been interesting to me.

So, with that being said, I'll adjourn this work group at this time, and we'll start the process to get together again. So, thank you.

(Whereupon, the meeting was adjourned at 1:23 p.m. EST.)