

1 intake overestimating internal dose
2 approach. That was the approach used in
3 this case was the hypothetical intake that's
4 defined in Technical Information Bulletin
5 Number Two, and a part of that is to use the
6 dose that a high non-metabolic organ or the
7 colon -- you know, it shows fairly, it's
8 described there. It points in fact lower
9 large intestine is probably a better
10 surrogate for the rectum. There is a target
11 for that. It is nominally slightly higher
12 than the colon. Given the nature that the
13 intake was hypothetical in the first place,
14 this kind of standard practice on that
15 hypothetical intake to select the colon as
16 the most, you know, the highest non-
17 metabolic. That's what we're doing.

18 **DR. H. BEHLING:** This is Hans Behling. We
19 agreed that the mistake resulted in nothing
20 of any great significance and was just a
21 technical issue with no significant impact
22 on dose. Issue Five?

23 **MR. GRIFFON:** Can I -- Just one small thing
24 on on your report, Hans, Page 10 just for
25 clarification, Page 10, Table 1.2 in your

1 original report on this case.

2 **DR. H. BEHLING:** I don't have it available.

3 **MR. GRIFFON:** You don't have it? Just a
4 small table here that shows that NIOSH
5 intentionally overestimated a dose and it's
6 fine, but just the way it's laid out I think
7 is a little confusing. It says, "NIOSH dose
8 in rem is 8.68," and then the other side,
9 the other column says, "Dose from the lung
10 scan is .827." And when you read the text
11 it makes sense, but that to me it wasn't
12 dose from the lung scan, it wasn't a CT --
13 you know, it's dose derived (unintelligible)
14 the lung scan and -- It's Table 1.2 -- but
15 it's still the dose to the lower large
16 intestine (unintelligible) derived from the
17 lung scan (unintelligible). When I first
18 saw that I didn't know what --

19 **DR. H. BEHLING:** Yeah, I'm not sure what
20 that is. I'll have to look at it myself.

21 **MR. GRIFFON:** (Unintelligible) If you're
22 like me sometimes you skim tables first,
23 then you know anyway --

24 **MR. HINNEFELD:** I think the reviewer, I
25 think this person had a bioassay or in vivo,

1 a chest in vivo record and the and the -- if
2 I recall correctly the reviewer evaluated
3 the result of that lung in vivo count with
4 that, what's left of the technical, against
5 what would have been there had the --

6 **MR. GRIFFON:** Yeah, the results I don't
7 dispute. The (unintelligible) for the lung
8 count would have been you know
9 (unintelligible) by NIOSH, so it's an
10 overestimate --

11 **MR. HINNEFELD:** Right, right.

12 **MR. GRIFFON:** But it was just a little
13 confusing, that's all.

14 **MR. HINNEFELD:** Right, yeah, okay.
15 Issue Number Five on Case 16 is that missed
16 neutron dose, possibly amounting to about
17 half a rem, was not included in the dose
18 reconstruction. Our comment here is that an
19 explanation of what happened, but I think
20 it's probably a valid comment at Rocky
21 Flats, it's probably a valid comment that
22 you know if you've got neutron zeroes,
23 thereby it might be something you would
24 expect to do if you have neutron zeroes you
25 would probably want to do a neutron missed

1 dose. There were, you know, as we've talked
2 about earlier, there were a number of other
3 overestimating approaches, like if a photon
4 missed dose has too many zeroes and things
5 like that, but despite that we try not to
6 say well we overestimated once, so we're not
7 going to worry about that. We try not to
8 take that as a normal practice. So I think
9 the comment here is probably an appropriate
10 comment. We don't have really any -- SC&A's
11 comment we feel like SC&A's issue is well-
12 founded and we don't have any real
13 particular conversation on it.

14 **DR. H. BEHLING:** And the only reason I
15 brought it up, Wanda, if you go to Slide
16 16.5 at the bottom, this is from ORAU
17 (unintelligible) 0006, less than 50 percent
18 probability is the attachment D that gives
19 instructions, and it's just a statement here
20 under discussion that says we need to
21 perform cases that are well below 50
22 percent. We need to maximize assumptions,
23 and the last statement that says unlike
24 approach for greater than 50 percent POC
25 cases, this process does not allow

1 (unintelligible) dose reconstruction as all
2 potential source of radiation must be
3 valued. It's just a statement that says,
4 you know, don't ignore something even if you
5 know very well it's not going to
6 significantly impact any POC calculation,
7 but again the instructions say let's be
8 exhaustive in assigning doses, be generous
9 in claimant favorability, et cetera, and in
10 this case missed neutron dose was not added,
11 again, it's just for the optics, for the
12 person who may look at this and say you know
13 what, they took, they didn't give me credit
14 for a missed neutron dose.

15 **MS. MUNN:** Yeah, right.

16 **DR. H. BEHLING:** That's all it is. That's
17 all it is.

18 **MR. HINNEFELD:** And this person had neutron
19 badge zeroes in their record as --

20 **DR. H. BEHLING:** Yeah, yeah, strictly an
21 issue of optics.

22 Okay, I think that completes Case 17 --

23 **MR. HINNEFELD:** Sixteen.

24 **DR. H. BEHLING:** Oh, 16, sorry.

25 **PRESENTATION/DISCUSSION OF ISSUES FOR CASE #17**

1 **DR. H. BEHLING:** We're next on Claim Number
2 17, and this involves a claim involving a
3 worker at the Fernald facility. He was
4 there from so approximately a
5 He worked in as
6 a and

7 The person has been diagnosed with two basal
8 cell carcinoma, and on the basis of the
9 assigned dose, he was given a probability of
10 causation of 54 percent, so this is a
11 partial dose reconstruction that focused
12 purely on what is obviously of critical
13 importance here, external skin dose at seven
14 millirems, whatever, as an assessment for
15 the probability of causation. No internal
16 was even attempted because of the nature of
17 the skin cancer, and I really have just a
18 couple of comments which will fit into that,
19 Stu, if you will introduce the issue.

20 **MR. HINNEFELD:** All right, Issue Number One
21 is that in the dose reconstruction the
22 employee had a relatively high level of
23 shallow dose in his record as reported by
24 the Department of Energy. And so the dose
25 reconstruction, realizing that shallow --

1 the dose in the open window of the film
2 badge would be partially due to beta
3 particles in the uranium plant and partially
4 due to photons, penetrate photons, decided
5 that they would just do -- start the dose
6 reconstruction since it's just partial by
7 only considering the electron, the beta
8 dose. So they made a subtraction of
9 essentially the deep -- the recorded gamma
10 dose. They subtracted that value from the
11 shallow dose that was part of the DOE's
12 records. And the reviewer took issue with
13 that subtraction, feeling that that was not
14 a correct adjustment to make.
15 I think from our, from the dose
16 reconstructor's standpoint that allowed him
17 to not have to apportion any of the shallow
18 dose that was recorded in the record to a
19 photon dose, which a portion of it would
20 have been. So it allowed him to essentially
21 uncouple the photon from the beta particle
22 dose and then only enter the beta particle
23 dose in the dose reconstruction. The
24 probability of causation was greater than 50
25 percent, and he was done at that point, so

1 that was the reason for doing the
2 subtraction.

3 **DR. H. BEHLING:** Okay, for my point of view
4 I would ask you to go to Slide 17.1, and it
5 gives you on the same note what this person
6 did. As you will see in the second column,
7 you have the DOE reported deep dose
8 equivalent, which turns out to be for the
9 full number of years, 4.5 rem, and then in
10 the third column you have DOE reported
11 shallow dose equivalent which turns out to
12 be 28.2 for 8 rem. And what this person did
13 -- I heard the point of efficiency, a
14 partial, you know when you get to the point
15 where it's greater than 50 you try to
16 eliminate any unnecessary step in order to
17 arrive at a conclusion that says we're going
18 to compensate, there's no need to go
19 further. And what he in essence did was
20 introduce a step that he could have avoided,
21 and simply say what is a valid dose that
22 could contribute to a skin dose, and that
23 includes both beta and low entry photons, so
24 why don't we just stick with the -- DOE
25 reported shallow dose -- and be done with it

1 because that would have been the simplest
2 thing. Say let's do a 28 rem skin dose and
3 on a basis of that assign a POC that says
4 we're done. So what was described as an
5 efficiency process is an extra step that
6 didn't need to be done, so I take exception
7 to the issue of efficiency as the
8 motivation. I just hope that this dose
9 reconstructor really didn't understand that
10 skin cancer is the result of the dose that
11 can come from both beta, low energy and high
12 energy photons. And to me it raises the
13 flag are we dealing with a person that
14 doesn't understand the nature of cause and
15 effect involving a dose that should have
16 been recorded strictly as a skin dose and go
17 from there instead of trying to pull out a
18 deep dose. Maybe he was under the
19 impression that deep dose didn't contribute
20 anything to the skin dose. I don't know.

21 **MR. HINNEFELD:** I don't think that's the
22 case. I think the case was he could have
23 fewer lines on his IREP input sheet because
24 he didn't have to enter and make any photon
25 entries. End dose, end dose, IREP requires

1 a radiation type. And so a different line
2 entry for every radiation type, so if you
3 include the photon exposure to the skin in
4 the dose reconstruction then you've doubled
5 the number of IREP input lines because you
6 need to put the photon entries in as well.

7 **DR. H. BEHLING:** I'll accept that as an
8 explanation. I think we can be --

9 **MR. HINNEFELD:** It really doesn't matter.
10 We all agree it was a greater than 50
11 percent case.

12 **DR. H. BEHLING:** Okay, I'll accept that as
13 an explanation of efficiency. It just
14 struck me odd that a skin dose wouldn't be
15 used since that --

16 **MR. HINNEFELD:** Right, right, absolutely you
17 are correct. You are correct.

18 **MS. MUNN:** Do I understand --

19 **MR. HINNEFELD:** Okay, Issue Number Two where
20 there was objection raised to the use of a
21 constant value in IREP for the beta dose as
22 opposed to the as opposed to a distribution,
23 a normal distribution, typically it's used
24 to measure (unintelligible) incorporate
25 distribution. This was an underestimate of

1 the skin dose. Since we didn't include the
2 photon contribution to the skin, we felt
3 like the dose was no lower than the value
4 that was selected. And since that was the
5 case, the entire distribution would have
6 been higher than the value we entered.
7 Therefore, in this underestimating or
8 partial dose reconstruction, we can enter
9 the value of the constant and allow IREP to
10 sample that same value every time.

11 **DR. BEHLING:** Again here we're talking about
12 uncertainty, and I would have to say I would
13 not want to have to do this uncertainty even
14 if it was required.

15 **MS. MUNN:** This is Wanda. Stu, do I
16 understand you correctly that when we do
17 IREP that I will have to admit my
18 incompetence with respect to IREP? I tried
19 to run a couple of them and discovered that
20 I was not yet ready for prime time. But did
21 I understand you correctly to say that IREP
22 requires a split out of the beta and gamma
23 dose?

24 **MR. HINNEFELD:** Right, IREP calls for
25 radiation types and for various radiation

1 types.

2 **MS. MUNN:** I see. So we don't really have
3 the option of just plugging in the DOE?

4 **MR. HINNEFELD:** No, not in general.

5 **MS. MUNN:** Okay, very good.

6 **MR. HINNEFELD:** There are two electron
7 energies. One is essentially only used for
8 tritium low energy electron which is
9 essentially only used for tritium exposures
10 and a high energy. There are three proton
11 energy ranges and there are five neutron
12 energy ranges.

13 **MS. MUNN:** Okay, I remember there are
14 several, but I didn't realize we didn't have
15 the option of just plugging in the number.
16 Thank you.

17 **MR. HINNEFELD:** I think I think if you get
18 right down to it I think maybe for high
19 energy electrons and photons there's a 30 to
20 250 keV, I think their radiation
21 effectiveness factor is the same in IREP for
22 those two, they're identical. So if you
23 actually lump those two together, you get
24 the same answer as if you split them apart
25 within the vagaries of Monte Carlo results.

1 MS. MUNN: Okay.

2 PRESENTATION/DISCUSSION OF ISSUES FOR CASE #18

3 DR. H. BEHLING: Okay, I guess we can go to
4 Case 18, and that is a Fernald worker who
5 was employed between so he
6 was there for approximately ' years. He
7 worked in plants and
8 , not that I'm familiar with those. His
9 job description is a was that of a
10 . He had
11 two cancers, the first one was a cancer of
12 the lung and also multiple skin cancers.
13 And again this was a partial dose
14 reconstruction and the POC for this guy
15 based on an assigned dose of 66.4 rem
16 approximately was 57.4 percent, so again
17 this guy goes over the threshold of
18 compensability. There are a couple of
19 issues so Stu, introduce Issue One.

20 **MR. HINNEFELD:** Okay, Issue Number One
21 relates to the selection of a presumed
22 mixture of solubility types of 30 percent
23 Type S, or slow dissolution, and 70 percent
24 Type M, without documentation -- well, A),
25 since this is a partial dose reconstruction,

1 that won't produce the lowest dose. You
2 know typically when we do a partial or a
3 greater than 50 percent POC, we kind of want
4 to, we kind of write into the dose
5 reconstruction that -- Well, it seems to be
6 at least this high, the dose seems to be at
7 least this high, and so since it's at least
8 this high and it can only be higher, here's
9 the here's the result that's greater than 50
10 percent, so we're done.

11 In this particular case, and in fact this
12 was a common practice for Fernald lung
13 cancer cases, there is -- there's several
14 uncertainty in the various kinds of U308 and
15 their solubility class. And their various
16 numbers are cited different places,
17 depending upon the treatment of the
18 material. And there is various other, maybe
19 not necessarily published, but
20 conversational information, that's out
21 there, so the actual -- It's unlikely that
22 U308, that this would exist in most cases at
23 a uranium plant is particularly pure in the
24 solubility class, but doesn't necessarily
25 fit one in particular. And so we felt like

1 -- saying it was Type M, which seems to be
2 the more dominant discussed U30A*, normally
3 it would be Type A to them, we weren't so
4 comfortable saying that we are confident in
5 saying that all uranium is Type -- all U308*
6 is Type M, and therefore we will do dose
7 reconstructions in accordance with that no
8 matter what, and be able to defend that
9 decision. We weren't terribly confident
10 being able to defend that decision.

11 And so we thought we ought to consider this
12 some sort of mixture, and I gotta tell you,
13 I don't know if we have a lot of empirical
14 support for the particular mixture we chose.
15 We felt that it was intuitively reasonable
16 but other than that I don't know that I have
17 a lot of support for it.

18 I don't know how else you want to talk about
19 this. I will say though that we are not
20 required to make an underestimating dose
21 reconstruction in order to have POC of 50
22 percent. It's not required. It's not
23 required to do an underestimate. I think if
24 you do an estimate then you feel like -- If
25 you don't have confidence that you can

1 refine it further on a particular avenue,
2 then you've probably done a suitable amount
3 of work and you can go with what you've done
4 and that's what we've chosen to do on these
5 exposures, on this exposure type of case, is
6 to do this 30/70 split, so I don't know what
7 your guys' take on this --

8 **DR. H. BEHLING:** This is sounding very nit-
9 picking and I admit that this is again part
10 of our first case where we had to show that
11 we know what we're talking about and we can
12 put it in again, but the only word that I
13 would take out is in a statement that says -
14 - in the dose reconstruction report,
15 additional assumptions were necessary in
16 order to determine all the parameters
17 required to complete the lung dose
18 reconstruction, the employee's work history,
19 da-da-da, and it goes on -- technical
20 reference reports solubility components in
21 some airborne contamination samples at
22 Fernald to be greater than 60 percent
23 insoluble. NIOSH assumes a mix of 30
24 percent Type S and 70 percent Type M in
25 performing its dose reconstruction,

1 considering this ratio to be claimant
2 favorable. (Unintelligible) claimant
3 favorable in context of a of a greater than
4 50 percent POC.

5 We're not supposed to be claimant favorable.
6 If you would struck those two words out I
7 would say we're trying to minimize the dose
8 and claimant favorability is is a paradox to
9 that dose reconstruction of a partial dose.
10 You don't do claimant favorability. If you
11 would have struck those two words out I
12 would have said forget it, you know.

13 **MR. HINNEFELD:** Okay, well we'll be a little
14 more reserved with our use of that term, I
15 guess. It's -- I mean in this case it was
16 just a partial dose. I think the logic of
17 the comment -- and I understand the logic of
18 the comment. The logic of the comment is
19 since you didn't even reconstruct a prior
20 dose, the other dose, why are you
21 emphasizing this claimant favorable on the
22 partial that you did? I understand the
23 nature of the comment.

24 I think you would agree that had we done a
25 dose reconstruction for this person, we had

1 -- It's all Type S (unintelligible) and it's
2 a dose drop down and it was less than 50
3 percent, you know, after we completed all
4 the dose components it was less than 50
5 percent. You would probably say we're not
6 so sure you guys have evidence to support
7 that. You would be telling us that if we
8 had used a hundred percent S. So we chose a
9 ratio, there is some air sampling data at
10 Fernald, or some solubility studies that
11 were done at Fernald, shows that there is in
12 many cases a relatively high insoluble
13 component -- they (unintelligible)
14 solubility studies -- it was a small study.
15 And so we felt like we chose reasonable
16 ratios for these type cases. That's what we
17 did.

18 **DR. H. BEHLING:** We will not be this nit-
19 picking in the future.

20 **MR. HINNEFELD:** Write that down.

21 **MS. MUNN:** This was an exercise for the
22 first time through.

23 **DR. H. BEHLING:** It is and that was the
24 whole point, Wanda. We wanted to show that
25 we can do nit-picking stuff and --

1 **MS. MUNN:** We can pick any nit you give us
2 to pick.

3 **DR. H. BEHLING:** We wanted to show you, the
4 Board members, that we -- You're dealing
5 with a pretty competent group of people that
6 went far beyond the call of duty.

7 **MS. MUNN:** Well, well done.
8 Is this a good time for us to take a 10-
9 minute break?

10 **DR. H. BEHLING:** Yes.

11 **MR. HINNEFELD:** I just want to know, was
12 this 02? Was this issue the same as --

13 **DR. H. BEHLING:** Yes, the same as one, the
14 same as one. I put that down, the issue two
15 the same as one. So let's conclude with
16 that particular case, and the next one will
17 be 19, after the break.

18 **MR. HINNEFELD:** After the break. All right,
19 how long are we going to break then?

20 **DR. H. BEHLING:** How about ten minutes? Is
21 that going to be all right, Ray, Wanda?

22 **MS. MUNN:** Fine for me.

23 **MR. HINNEFELD:** Ray?

24 **COURT REPORTER:** Yes, that's fine, thanks.

25 **DR. H. BEHLING:** All right, ten minutes.

1 (Whereupon, a ten-minute break ensued.)

2 (During the break Mr. Griffon departed.)

3 **PRESENTATION/DISCUSSION OF ISSUES FOR CASE #19**

4 **DR. H. BEHLING:** We're back on. Case 19, at
5 Oak Ridge National Laboratory. The person
6 there was employed for a period between
7 so we're talking about a year
8 period of employment at the X-10 site, and
9 his job description was :

10 The person has a cancer of the colon. His
11 assigned dose was 26.3 rem, and most of
12 that, or it looks like about half of it, was
13 assigned dose from an internal hypothetical
14 model. The issues for this guy are -- How
15 many issues do we have?

16 **MR. HINNEFELD:** We made comments about two.
17 We made comments about two.

18 **DR. H. BEHLING:** Yeah, this is the
19 individual that I believe was reviewed by
20 someone who must have been talking to Case
21 Number 16 because we're going to repeat some
22 of the same issues and hopefully make that
23 very, very brief because we discussed that
24 in behalf of Case 16. Okay, Issue One.

25 **MR. HINNEFELD:** Okay, Issue Number One is

1 that the reiterative issue with the
2 exclusion of tritium. There was no tritium
3 dose in the dose reconstruction, and our
4 response is the approach that has been that
5 unless there is evidence of tritium
6 exposure, we don't automatically assign
7 tritium to everyone. A tritium worker
8 generally will have tritium bioassay. I
9 believe we got a full record with this
10 person, including, perhaps some bioassay
11 records, annual samples or infrequent
12 samples, but there was no tritium bioassay.
13 Job position didn't really seem one that
14 would be lending itself to tritium exposure,
15 and so based on that our decision was not to
16 incorporate tritium exposure in the dose
17 reconstruction. Person worked in Oak Ridge
18 National Laboratory.

19 **DR. H. BEHLING:** Okay, we concur with that
20 but also realize that the security inspector
21 he was probably at multiple sites. I don't
22 know exactly what a security inspector
23 necessary does, but I assume he would have
24 potentially been subjected to just about
25 every location on site. The particular site

1 where he worked does in fact have tritium,
2 and on the basis of no records, which we
3 would agree there are no records for this
4 individual that he was monitored, but again
5 without having the details as we know in
6 behalf of Savannah River Site, five
7 microcuries or less per liter were at times
8 not recorded and again in concert with
9 claimant favorability that was obviously
10 afforded to people at the Savannah River
11 Site where we also assigned up to 355
12 millirem a year for tritium doses, we felt
13 perhaps a claimant favorability might be
14 extended here. It's just a toss-up, there's
15 no firm evidence, as Stuart has pointed out,
16 to suggest he was exposed because of the
17 absence of tritium data but because he was a
18 security inspector, walked around and
19 therefore has to probably been exposed to
20 multiple locations and the practice of not
21 necessary reporting urine data below five
22 microcuries per liter raises the question of
23 was he or wasn't he exposed in concert with
24 the claimant favorability that was given to
25 people at the Savannah River Site. In in in

1 this cases, Cases Six through Eleven, that
2 we talked about yesterday, we felt there's a
3 possibility that at least some consideration
4 might have been given. It's a toss-up.

5 **MR. HINNEFELD:** Okay I -- Go ahead.

6 **MR. GIBSON:** This is Mike Gibson. Along
7 with that I notice that there was no neutron
8 dose considered, and given the fact that
9 usually
10 make plant tours, I wonder why there was no
11 neutron dose considered.

12 **MR. HINNEFELD:** I would say it's probably
13 the person didn't have a neutron badge, so
14 there were no zeroes probably in the record.
15 I'm guessing 'cause I don't have the record
16 in front of us. Generally if there's a
17 neutron badge worn, unless it's a facility
18 that hangs a neutron badge on everybody, but
19 if there's a neutron badge worn, generally
20 we'll do a neutron dose consideration, and
21 without a neutron badge being worn that's
22 probably why the decision was made not to
23 include it. It is a fact that security
24 inspectors are liable to be anywhere on the
25 facility. That is true. I think there are

1 other -- This inspector did get the
2 hypothetical TIB-2 intake, there's a very,
3 what we consider a very large overestimating
4 internal dose assignment made, so I think
5 it's -- I can check the neutron question
6 more at National Lab. My recollection is
7 that Oak Ridge National Lab was pretty
8 comprehensive in its monitoring program from
9 pretty early on. But you can't necessarily
10 say that about all the Oak Ridge sites or
11 all the DOE sites in general, but Oak Ridge
12 National Lab seems to have been pretty
13 comprehensive from pretty early on. And so
14 we felt like it was an okay decision for
15 this site.

16 Okay, the second issue was the same as
17 before. We talked about the significant
18 overestimate of medical exposure based on
19 the selection of an organ, a maximizing
20 organ dose, as opposed to an actual target
21 organ dose. So we've kind of talked about
22 that ad infinitum.

23 And those are the only two comments that we
24 talk about, only two issues that we made
25 comment on. So if there were other aspects

1 of the claim for discussion, I don't know
2 what they would be.

3 **MR. GIBSON:** This is Mike Gibson. I have
4 one other question. I believe this was a
5 survivor claim, and there were several
6 people listed as coworkers to follow up
7 with, and it's not apparent that there was
8 any follow-up done, either by phone or in
9 person, with these coworkers who could maybe
10 shed more light on this case. If that's the
11 case why was that not done?

12 **MR. HINNEFELD:** Well, the coworker follow-up
13 usually is done when there doesn't --
14 there's evidence in the file or there's
15 information that we feel we need to pursue
16 further. It's not -- you know, we don't as
17 a routine matter, call all the coworkers
18 identified during the claimant interview.
19 That's not part of the routine process. So
20 while the claimant is asked during the
21 interview are there people who work with you
22 or worked with your, the interviewed
23 employee, and may get some names of people
24 like that, it's not a standard practice to
25 call these people if the records seem

1 complete and the case seems like it's a
2 pretty solid case with the information
3 available. Now, you know, whether that's,
4 you know that's the approach we're working
5 on. Now certainly there can be some
6 discussion of that in the Board, or among
7 the Board, however you want to have that
8 discussion. I think from our standpoint
9 that's kind of the practice we've adopted,
10 and the dose reconstruction was kind of
11 consistent with that, what we've done.

12 **MS. MUNN:** This is Wanda. It was my
13 understanding that that coworker data would
14 be pursued primarily when there was lack of
15 badge data or no real monitoring data and
16 when there were circumstances where the job
17 practice for that site was not well known.
18 I don't think that's the case at X-10.

19 **MR. HINNEFELD:** Yeah, that's pretty much the
20 way we're behaving. I think the issue here
21 is on this claimant interview there probably
22 are some coworkers asked -- or the claimant
23 is asked do you know of any coworkers of the
24 interviewed employee, and so some names are
25 provided. But you know as you said with a

1 fairly complete, or a complete record or a
2 feeling that there's sufficient information
3 available with what we have in hand, it's
4 not our standard practice to contact all
5 those identified coworkers from all those
6 interviews. Good, bad or indifferent,
7 that's our standard practice.

8 **MS. K. BEHLING:** This is Kathy Behling. I
9 have another question, and I think we did
10 bring up this coworker issue yesterday
11 because we hadn't seen any (unintelligible)
12 where a coworker has been contacted. Would
13 that be the dose reconstructor that would
14 actually contact that coworker? Or how does
15 that process work?

16 **MR. HINNEFELD:** Well, the dose reconstructor
17 would not make the contact. The dose
18 reconstructor can decide how -- for this
19 case there are questions here that are not
20 answered by the information available and
21 maybe these coworkers who are identified can
22 shed some light on it. They may make that
23 decision. The contact would be made by the
24 claimant interviewers --

25 **MS. K. BEHLING:** Okay --

1 **MR. HINNEFELD:** -- who conduct essentially
2 all the interviews. Now a health physicist
3 may sit in to facilitate that interview, to
4 make sure the questions are appropriately
5 phrased and appropriately you know and that
6 the answers are appropriately understood,
7 but it would typically not be the actual
8 dose reconstructor working the case.

9 **MS. K. BEHLING:** Can you give me an idea at
10 this point in time how many coworkers, or
11 how many cases, you've actually contacted
12 the coworkers?

13 **MR. HINNEFELD:** It's a few, it's not a lot.
14 I don't know if it's as many as ten or not.
15 I don't keep that statistic, so I don't
16 know. I know there are a few that we have
17 called the coworkers listed on the
18 interviews.

19 **MR. GIBSON:** This is Mike Gibson, again. I
20 guess I just want to follow up by saying
21 that in the absence of knowing whether or
22 not that the security inspectors do in fact
23 wear TLDs or some sort of dosimeter, this
24 may have been an appropriate case to contact
25 some of the coworkers, given the fact that

1 the survivor may not have known the
2 information.

3 **MR. HINNEFELD:** That's true. My
4 recollection is we got an exposure record
5 back for this person. I mean we had their
6 film badge or TLD record I thought. I may
7 be picking kind of from memory here, but I
8 don't recall for sure.

9 **DR. H. BEHLING:** His photon dose was zero.

10 **MR. HINNEFELD:** It says zero reported.
11 Okay, zero reported so apparently it was
12 monitored. We did get the record because we
13 have a missed dose component in there, so we
14 did get his monitoring record from the
15 Department of Energy and he did wear a film
16 badge or a TLD.

17 **DR. H. BEHLING:** For this person, Wanda, we
18 assigned a dose as you can see on the face
19 page for Case 19. We assigned 21.363 rem
20 for missed photon dose which covers a 20-
21 year period. So he was clearly monitored
22 throughout that whole period of time but
23 never had a reportable exposure.

24 **MS. MUNN:** Yes, I was fairly certain that X-
25 10 would be well-monitored.

1 **MR. HINNEFELD:** And then Issue Two, we did,
2 was the one we already, okay. I think that
3 concludes what we have for Case 19.

4 **PRESENTATION/DISCUSSION OF ISSUES FOR CASE #20**

5 **DR. H. BEHLING:** Yes. Okay, Case Number 20,
6 which is our last one now. It's at Y-12,
7 and this person was employed since and
8 as far as I know he may still be working
9 there so he's been there for a period of --

10 **MS. MUNN:** Almost years.

11 **DR. H. BEHLING:** - -some-odd years. The
12 cancer, however, was diagnosed in , so
13 we have a -year period for assessing his
14 exposure since we only assess exposure up to
15 the time of cancer diagnosis, which was

16 The individual has a prostate cancer,
17 and based on a dose of 15.8 rem, most of
18 which was hypothetical internal exposure of
19 the 15, 12 -- well in excess of 12 rem was
20 hypothetical internal the POC of 10.26 was
21 derived.

22 Okay, Issue Number One, Stuart.

23 **MR. HINNEFELD:** Issue Number One is that
24 there's a description in the dose
25 reconstruction of the surrogate organ that's